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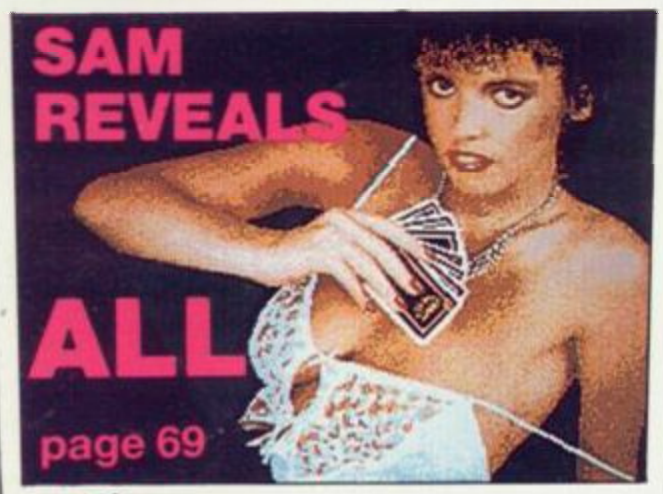

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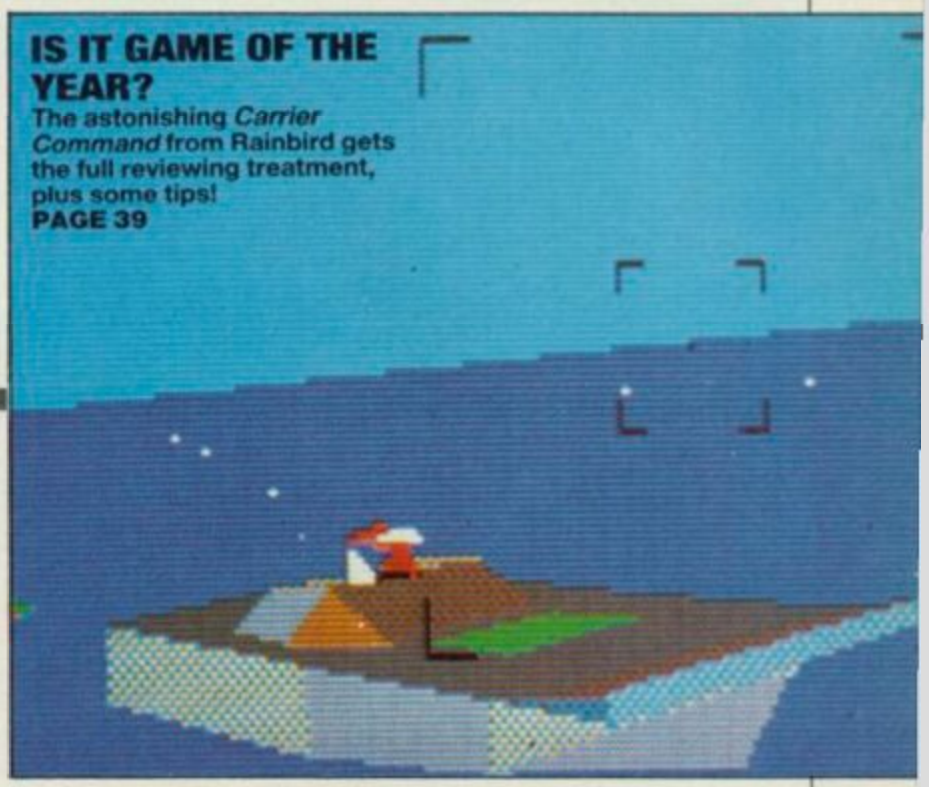
ISSUE 7 JUNE 1988

THIS ISSUE . . .



IS IT GAME OF THE YEAR?
The astonishing *Carrier Command* from Rainbird gets the full reviewing treatment, plus some tips!
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THE ST ADVENTURE CREATOR (STAC)
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THE SUPER ST IS HERE!
TGM gets the latest info on the ST ParSec system which turns your humble Atari ST into something very different. Plus the highly accomplished PC version of *DeluxePaint II* and an amazing video production tool called *DeluxeProductions* for the Amiga
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BLEEP HOUSE
'I have seen the future, and it has no toilet seats . . . ' and its heart is a computer. TGM visits the House of the Future
PAGE 86

MSX-II – THE RANGE
TGM explains the machines, their features, how the games work and just why MSXmania is sweeping the country
PAGE 88

IT BITES!
It Bites are a Virgin-label band who use Atari STs for their recording and live appearances. JON BATES chats to guitarist Francis Dunnery and asks how they get on with a home micro
PAGE 119

Issue 8 of THE GAMES MACHINE goes on sale from June 16 – see page 122 for details – don't miss it because it will be packed with essential features, reviews and articles – as usual!

EDITORIAL *47 Gravel Hill, Ludlow, Shropshire SY8 1QS* ☎ 0584 5851/2/3 **Editor:** Oliver Frey **Assistant Editor:** Nik Wild **Software Coordinator:** Richard Eddy **Staff Writers:** Robin Hogg, Stuart Wynne **Editorial Assistant:** Frances Mable **Photography:** Cameron Pound, Michael Parkinson (Assistant) **Contributors:** Jon Bates, Tony Bridge, Robin Candy, Mel Croucher, Robin Evans, John Gilbert, Roger Kean, Barnaby Page, Rob Steel, John Woods **PRODUCTION** *1/2 King Street, Ludlow, Shropshire SY8 1AQ* ☎ 0584 5851/2/3 **Art Director:** Markie Kendrick **Assistant Art Director:** Wayne Allen **Design & Layout:** Yvonne Priest, Melvin Fisher **Pre-Print Manager:** Jonathan Rignall **Reprographics/film planning:** Matthew Uffindell, Nick Orchard, Ian Chubb, Robert Millichamp **Publishing Controller:** David Western **Editorial Director:** Roger Kean **Advertisement Manager:** Roger Bennett **Sales Executive:** Andrew Smales **Assistant:** Jackie Morris ☎ (0584) 4603 **OR** (0584) 5852 **MAIL ORDER** Carol Kinsey **SUBSCRIPTIONS** Denise Roberts *PO Box 20, Ludlow, Shropshire SY8 1DB* Typeset by the **Tortoise Shell Press**, *Ludlow*. Colour origination by **Scan Studios**, *Wallace Road, London N1*. Printed in England by **Carlisle Web Offset**, *Newtown Trading Estate, Carlisle, Cumbria CA2 7NR* – a member of the BPCC Group. Distribution by **COMAG**, *Tavistock Road, West Drayton, Middlesex*.
COMPETITION RULES The Editor's decision is final in all matters relating to adjudication and while we offer prizes in good faith, believing them to be available, if something untoward happens (like a game that has been offered as a prize being scrapped) we reserve the right to substitute prizes of comparable value. We'll do our very best to despatch prizes as soon as possible after the published closing date. Winners names will appear in a later issue of THE GAMES MACHINE. No correspondence can be entered into regarding the competitions (unless we've written to you stating that you have won a prize and it doesn't turn up, in which case drop Frances Mable a line at the PO Box 10 address). No person who has any relationship, no matter how remote, to anyone who works for either Newsfield or any of the companies offering prizes, may enter one of our competitions.
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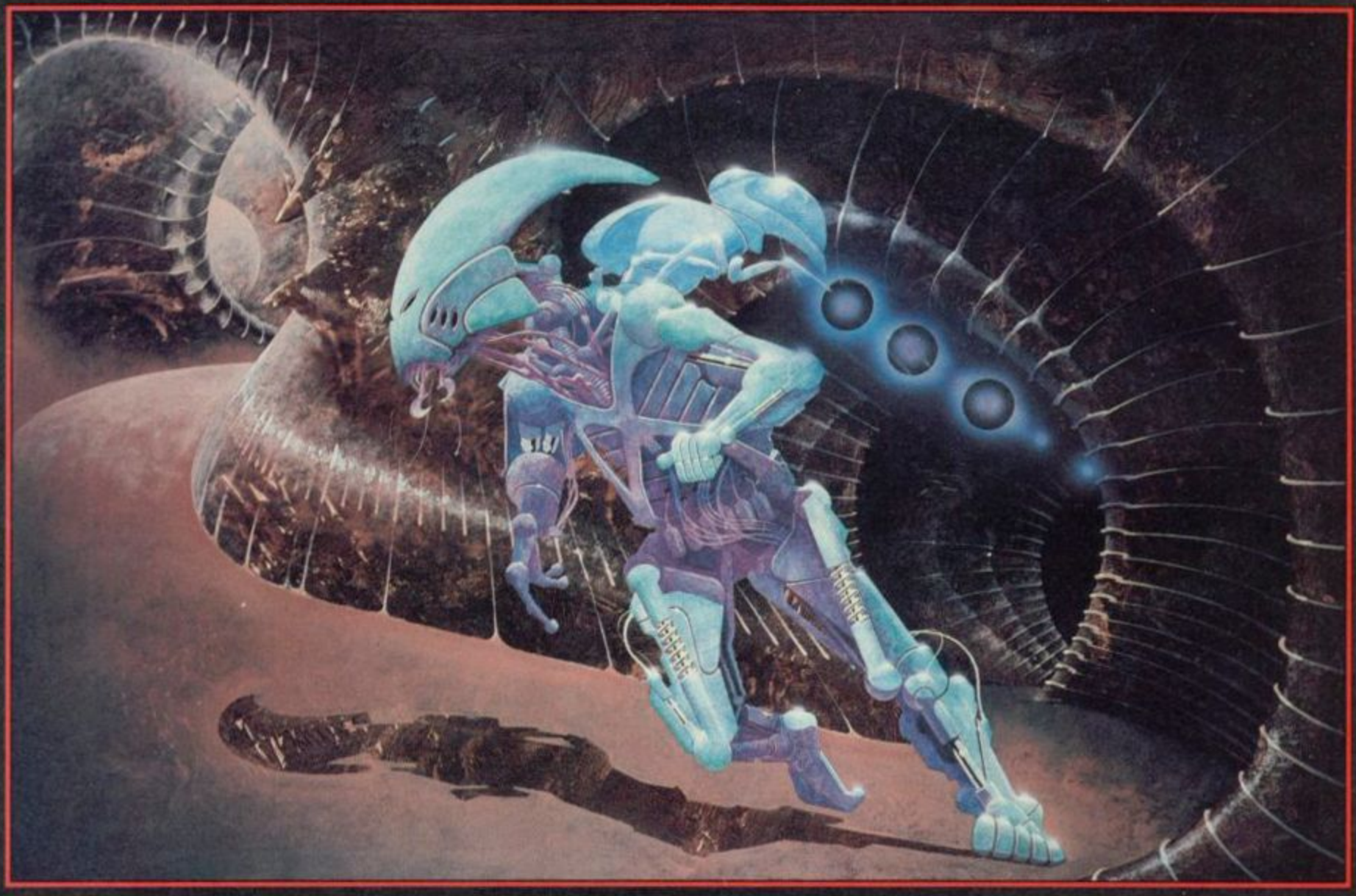
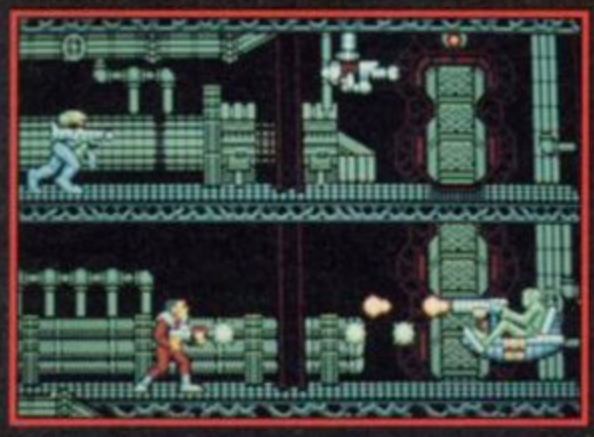
OBLITERATOR





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THE GAMES MACHINE REPORT

BUT IS IT ART?

THIS MONTH sees the opening of a travelling exhibition called **Computers and Art** in New York City's IBM Gallery of Science and Art. The exhibition aims to bring computer art firmly into the mainstream and, besides the predictable computer graphics, the exhibition also includes a host of work, such as fabrics and sculptures, which have used computers to help design or produce them.

Conventional CAD (Computer Aided Design) packages, for instance, can be very useful for sculptors planning massive public works, allowing them to 'walk' through preliminary designs as the public might later. A more unexpected area for computer aided art is choreography, whose exponents currently suffer from having to painstakingly record their work by hand. Programs under development aim to vastly simplify this very complicated process, and even show computer dancers on screen so that rough work no longer requires hiring live dancers.

INTERACTIVE COURSES

Many of these programs have been written at huge American universities who haven't been slow to offer courses on the subject. Already a course has begun at the respected Carnegie Mellon on writing 'interactive fiction' of the Infocom variety. Institutes in both New York and San Francisco offer degrees in computer art and universities around the country are looking to hire people to teach the subject. Falling prices and rising capabilities can only help of course. The Hockney piece in the exhibition was done on a £20,000 specialised system, but contributions by the late Andy Warhol used only an Amiga.

If you perhaps fancy yourself as the Warhol of the Nineties, check out this issue's special graphics section starting on page 79, with the superb *Deluxe Paint II* for the IBM and the impressive, but expensive *DeluxeProductions* for the Amiga. Then go to page 71 where you will find details and an entry form for the Newsfield-organised first British public exhibition of computer art.

Fresh air at the touch of a button . . . The Mountain Breeze Air System 3000

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THE country's leading ioniser manufacturer have created yet another air care product. The **Mountain Breeze Air System 3000** represents the latest addition to the company's extensive range of air care products, and offers a combination of ionisation, fan and advanced filter system which work together to remove smoke, dust, pollen and bacteria. Mel Croucher loves it . . . Available from leading stores, it costs Yuppie-£149.95.

CRY WOLF AAWOOOOHOOOO

DRACULA had one, so did *Frankenstein* and *Jack The Ripper*. So why does *Wolfman*, **CRL**'s latest horror-adventure game, lack one of those contentious rating certificates from the British Board of Film Censors.

According to a spokeswoman for the company the answer is plain: 'In order to qualify for a certificate, the material has to be animated. There is less animation in *Wolfman* than in any of the other games in the series so a certificate is not required.'

The game, however, still contains scenes of graphic, if somewhat frozen violence, which are well represented on the Amstrad and Commodore packaging.

A new collection of hand-held LCD games from Systema

POCKET GAMES

SEVERAL new models have been released by **Systema (UK) Ltd** to enhance their 1800 series of miniature electronic games. The range now includes *Formula 1*, *Space Rescue*, *Ghosties*, *Tennis*, *Soccer* and *Super Boat*. Each pocket-sized, action-packed game includes two levels of playing skill, three lives, sound FX and thoughtfully incorporates an alarm clock! Retailing for around £6.99 each, the 1800 series are available from selected toy shops. Look out for news of additional titles planned for release later this year.

MOVING ON ANIMATION . . .

THE ART-HOUSE cinema circuit is leaping on the computer animation bandwaggon too. London's **National Film Theatre** has just presented John Halas in a lecture on electronic animation and computer graphics, and on May 28, following a screening of the Disney film, *Tron*, there will be a computer animation session.

ON A WING WITH A PRAYER

THE PUBLICITY MACHINE

PALACE's gruesome beat-'em-up of last year, *Barbarian – The Ultimate Warrior*, aroused public outrage from the corruptible for its violence and accusations of pornography for using a posed Maria Whittaker on the packaging. Quite an advantage for Palace – it provided the company with a lot of publicity, which in turn provided them with a high sell-through.

The Palace publicity machine is at it again with the sequel to *Barbarian* called *Barbarian – The Dungeons Of Drax* (August release: Spectrum, Commodore 64/128, Amstrad, Atari ST, Amiga). It's programmed by **Steve Brown**, the original's author, with sound FX by **Richard Joseph**.

Fitting in the fantasy/horror theme of* Barbarian II, *Maria Whittaker and Mike Van Wyjk daren't cross swords with programmer Steve Brown

The original *Barbarian* is also due for release on the BBC and Electron from **Superior Software**, who have converted the game. The promotion is being handled by public relations man **Michael Baxter**. Baxter, who also promoted the first game for Palace, has this to say on the subject: 'Good packaging should capture the atmosphere of the game – and that's why *Barbarian* worked, not simply because Maria Whittaker was posing but because it is in line with the rest of the horror/fantasy illustrations – big strong man (Mike Van Wyjk in *Barbarian*'s case) rescues dainty damsel. It's the style of the genre, and buyers associate with it.'

FOXY LADY

As John Gilbert reports, **Martech** are taking a leaf from Palace's book, and even if software houses have tried to represent women fairly on computer screens for some years, and despite the use of a video digitiser in Martech's latest game, the foxy lady in *Vixen* isn't likely to be what feminists had in mind. She's Corrine Russell, who poses as the heroine of *Vixen* (seen alongside our very own Mel Croucher.)

Vixen, whose clothing is composed of leopard offcuts and whose only weapon against the beasts of the Granath jungle is a whip, has been animated from real life along with her Fox alter-ego. The character is, therefore, impressively detailed and her actions, which include flicking the whip, crouching, running and turning into an equally impressive fox, are very realistic.

The game's available on 8-bit Spectrum, Amstrad and Commodore formats but the digitiser's detail – which doesn't include scenery as well as figures – can be seen on the 16-bit ST and Amiga versions.

But then, who needs half-clad models to make a promotional photograph worthwhile? Certainly not **US Gold**, as Marketing Manager **Richard Tidsall** and his assistant **Danielle 'Woody' Woodyatt** prove with the Charlie Chaplin photo – Richard is the one on the left. 'The key idea is originality,' says Tidsall. 'The *Barbarian* theme was successful but is old hat now. The Charlie Chaplin shot got coverage because it's good, fun and leaves scope for magazines to adapt the photo to their own style.' *Charlie Chaplin* goes on release at the end of May on Spectrum, Commodore 64/128, Amstrad, IBM PC and Atari ST formats.

Don't ask us what he's doing there, but it's THE GAMES MACHINE's Mel crouching, and Corrine Russell's Vixen towering

Why bare all when an entertaining promotional shot does the game justice?* Charlie *'Tidsall'* Chaplin *from US Gold

STARS COME OUT FOR COMMODORE SHOW

THE 11th Commodore Show is at the Novotel, Hammersmith, London from the June 3-5, with a host of stars joining the owners of Commodore machines, including Olympic gold medalist **Tessa Sanderson**, football players from Commodore-sponsored Chelsea FC, TV star **Adam Faith** and Radio One DJ **Bruno Brooks**.

A less-human star is the Amiga, complete with extensive displays of software and hardware; watch out for the first-day seminar on the Amiga's graphics capabilities. Software on show includes a comic creation DTP package, assemblers, word processors, databases and an improved Pascal from **Metacomco**. **Ariadne Software** are displaying for the first time an interactive video communications system, a Sony U-Matic video tape editor and a Video Player device allowing the Amiga to control laser discs, compact discs and video recorders, while **Evesham Micros** have an external Amiga drive on sale.

PHM PC Pegasus . . .

OUT TO LAUNCH

ELECTRONIC ARTS and Lucasfilm Ltd, have announced the release of the great ocean-going game *PHM Pegasus* for the IBM and PC compatibles. The game (see review in TGM**003**) puts the player in control of a hydrofoil as it battles with numerous enemy vessels. Compared with other versions, the PC game has an additional ten missions, resulting in 18 dangerous assignments for players to complete. The retail price is £24.95

REAL PEOPLE

GrandSlam use real people for their promotions – pictured here are **Tony** and **Mark Wallis**, winners of our *Hunt For Red October* competition run in TGM**002**. After a tour of the naval gunship, Tony and Mark met GrandSlam's Managing Director, **Stephen Hall** and downed a tot of rum on deck.

Real people (Tony and Mark Wallis) promoting* The Hunt For Red October *on board HMS Belfast

READERPAGE

Flicking through all the letters Readerpage receives every month, it's easy to see what is the matter for concern at any given moment. As this issue's printed letters make pretty clear, it's the 16-bit battle between Amiga and ST owners, with some interesting sidelights on the Archimedes computer. As one writer points out, however, all the arguments are pointless to some extent, because whatever we have bought, we are probably going to have to make do with. Certainly several Amiga owners have attacked a letter in last month's column about the 'amazing ST upgrade which makes it faster than an Archimedes. If you haven't already perused our feature on the ParSec system (page 79), do so – the letter writer was substantially correct. Where he was wrong, though, was that its developers intend manufacturing one for the Amiga as well . . .

On a different subject, many correspondents have asked for a reward for sending Readerpage letters. Frankly the letter itself should be the reward, but THE GAMES MACHINE isn't going to be as mean as that. So from next issue onward, we will be awarding £40-worth of software of your choice to the best letter printed every month. so get writing! The address is: READERPAGE, THE GAMES MACHINE, *Po Box 10, Ludlow, Shropshire SY8 1DB.*

THE PRICE GAME

Dear Games Machine,
I have decided to add my only slightly biased opinions to the Amiga-ST-Archimedes debate. I own an Amiga as will later become clear.
PRICE: Totally unimportant to any Amiga or Archimedes owner as they have already paid for their machines. ST owners use it as an excuse for buying an inferior computer.
GRAPHICS: Guess who loses out in this department! Honestly, fancy only having 256 colours!
SOUND: Archimedes wins here. ST is now well back.
FRONT END: Amiga first. ST second. Archimedes last; it would be second but GEM works occasionally.
SOFTWARE: Archimedes suddenly looks very insignificant. At 20 quid a time you're not going to run out of games to buy on the other two machines.

From the above comparisons I have arrived at the conclusion that the Amiga is far and away the best.

Of course all this is total rubbish. If you already own one of the aforementioned machines, the arguments are pointless. We have to make do with what we've got, bad luck to all ST owners out there. If you don't, then you choose the machine that most suits your needs or budget. All the arguments are because no-one wants to admit they've blown so much money on an inferior machine.

I bought an Amiga so I could look down on all my 'friends' at school who owned STs, Spectrums and C64s. Unfortunately the Archimedes appeared on the market (admittedly a slightly better machine than the Amiga (very slightly), fortunately no-one I know is rich enough to buy one!
Robert Crowther, Leicestershire

Reading about Elmtech Research's ParSec Pixel+ for the Atari ST (page 79) may well change either your low opinion or your arguments, or both! Admittedly, adding its price to that of an ST does make the combination expensive, but still cheaper than an Archimedes.

OKAY CUTIE

Dear Games Machine
Why not have a hardware review section of things such as new joysticks, printers etc. This would be very helpful for those of us who want to add on to our machines and upgrade them.

Please could you review some more utilities such as animation packages.

Why have you got a roleplay section? It distinctly says on the front – 'THE GAMES MACHINE Computer and Electronic entertainment'. So why a roleplay section?

And a proper comic strip is needed; the mega-naff Mercy Dash does not come into this category. Cutey-poo is brill!!!, if a little short, but that doesn't matter.
Michael Judge, Bakewell, Derbys

Where do you draw the line between hardware as an adjunct to entertainment or something else? THE GAMES MACHINE isn't primarily intended as hardware magazine, there are plenty of those around already. That said, there is the article on the ParSec graphics system in this issue, plus coverage of MSX-II machines. There's also the* DeluxeProductions *feature and* DeluxePaint II *for the PC machines. As for the cover: it may say 'Electronic Entertainment', but it also uses the word GAMES in there somewhere . . .

ATARI LASHBACK

Dear Games Machine,
It's slate time. I am referring to the person who wrote the letter entitled 16 MILLION COLOURS (TGM**006**). This person seems to be devoid of any mathematical or factual sense.

Firstly (apart from being totally biased toward the ST) he is a mathematical failure. He says that the ST 'add on' is 50% faster than the Acorn Archimedes. Well, seeing that his 'add on' runs at 48Mhz he is effectively saying that the Archimedes runs at 24Mhz. Not true: the Archimedes runs at 80Mhz. Oh well, you were only 32Mhz out, not bad for a failure.

He says that the ST is £300 (or less). I don't know when he wrote this letter but I knew around one or two months ago that the ST was going up in price. It is now £399 (or less). Now you cannot say that the Amiga is a 'rip off'. I got mine (with modulator) for the same princely sum, (£399) just before Christmas.

As for Amiga/ST software support the Amiga is catching up fast. All Ocean's games are being converted, and lots of other companies are doing the same. (Why don't they state this in their advertisements.) Anyway as for software quality I recently saw *Hollywood Poker* on the ST, are they Humans or Martians?

I had to laugh at the screen size, the scrolling area makes even the Amstrad 464/664's screen look big. As for sound what can I say, BLEEP?

Lastly, before everyone starts shouting 'He's Amiga biased' I am not, I also like the Archimedes the Apple IIGs and the Mac range.

Anyway I like THE GAMES MACHINE, so I'm not all bad.
Russ Flaherty, Liverpool

No, not all bad, but not strictly accurate either, Russ! Nicholas Nicon's letter in last month's Readerpage, referred to the relative processing speeds: Archimedes 4 MIPS – ParSec 6.25 MIPS. There's a 50+% in there somewhere!

WATCH THE RAYBANS

Dear Games Machine,
I write to keep you in touch with the word on the street as a fly on the rising dampened wall sees it.

From the article on Rare (TGM**004**) I received the impression that the writer was taken by the colourful and bright Japanese magazines. Don't! Don't what? Don't imitate these continental collages. I like your magazine in the present format, without random splodges of luminous colour tearing at my cornea as I search in vain for the camouflaged criticism. Leave things neat and tidy; after all, if the text is lively and interesting enough there will be no need for the sales boost in sun glasses.

Which leads me to another unnecessary inclusion. Cutey whatsits. Not very funny, or am I missing something? You will be having a Kamikaze Guinea Pig next.

Next through the mincer goes YUPPIE TOYS (TGM**006**). This was decidedly average but hardly relevant to the subject of computers. Surely the space could have been used to shift the backlog of reviews you keep telling us about.

Last I would like to say that I don't despise all irrelevant things. Variety is the spice of life, or so they say, and you can't say that Mel Croucher doesn't write a lot of variety!

Signing off now. £1.25 is good value (although you will probably increase it after you have read this.)
Stuart Bedford, Wakefield, W Yorks

To you: £1.50 and a free pair of sunglasses! Don't worry, THE GAMES MACHINE isn't going to turn into a 'continental collage'. We also think it's the text that matters more than how many colours you can splash behind it. But Yuppie Toys are electronic entertainment, Stuart, surely?

A BIT WIMPISH

Dear Games Machine
Recently an argument arose between a few of my friends and myself as to the meaning of WIMP. A few said it meant Windows, Icons, Menus & Pointers, and moreover they had a copy of *Micro User* to prove it. Undeterred, I came up with the

Degas Elite article (TGM**003**) –or more precisely the little box entitled WIMP BASHING & DTP – which clearly states that WIMP stands for: Windows, Icons, Mouse and Pull-down menus, which is what I thought. Could you please clear up the mystery once and for all?
Jason Nathan, Hampstead, London

You say 'eether', I say 'ayether'. People who invent acronyms rarely maintain full control of their meanings. Apple will doubtlessly agree with* Micro User*'s definition, but in most practical applications of WIMP/GEM/WINDOWS environments, it's the pull-down menus and not the pointer that has the most meaning.

MSXPRESSED

Dear Games Machine
It's great to see you supporting the MSX format, and that you have been impressed with the MSX games you have received so far.

I'd like point out that *F1 Spirit* (Konami) is also MSX-I compatible and will in fact run on any MSX machine. This just shows the capability of even the humble MSX 1 machines, when used with decent software. By the way, Have you seen *Hype*, a shoot-'em-up for the MSX-I and II. It's a brilliant game, but does not appear to be on sale in the UK yet.

I intend to purchase an MSX-II machine shortly, as several of my friends use these computers, and I am particularly impressed with the Sony (as I believe you are).

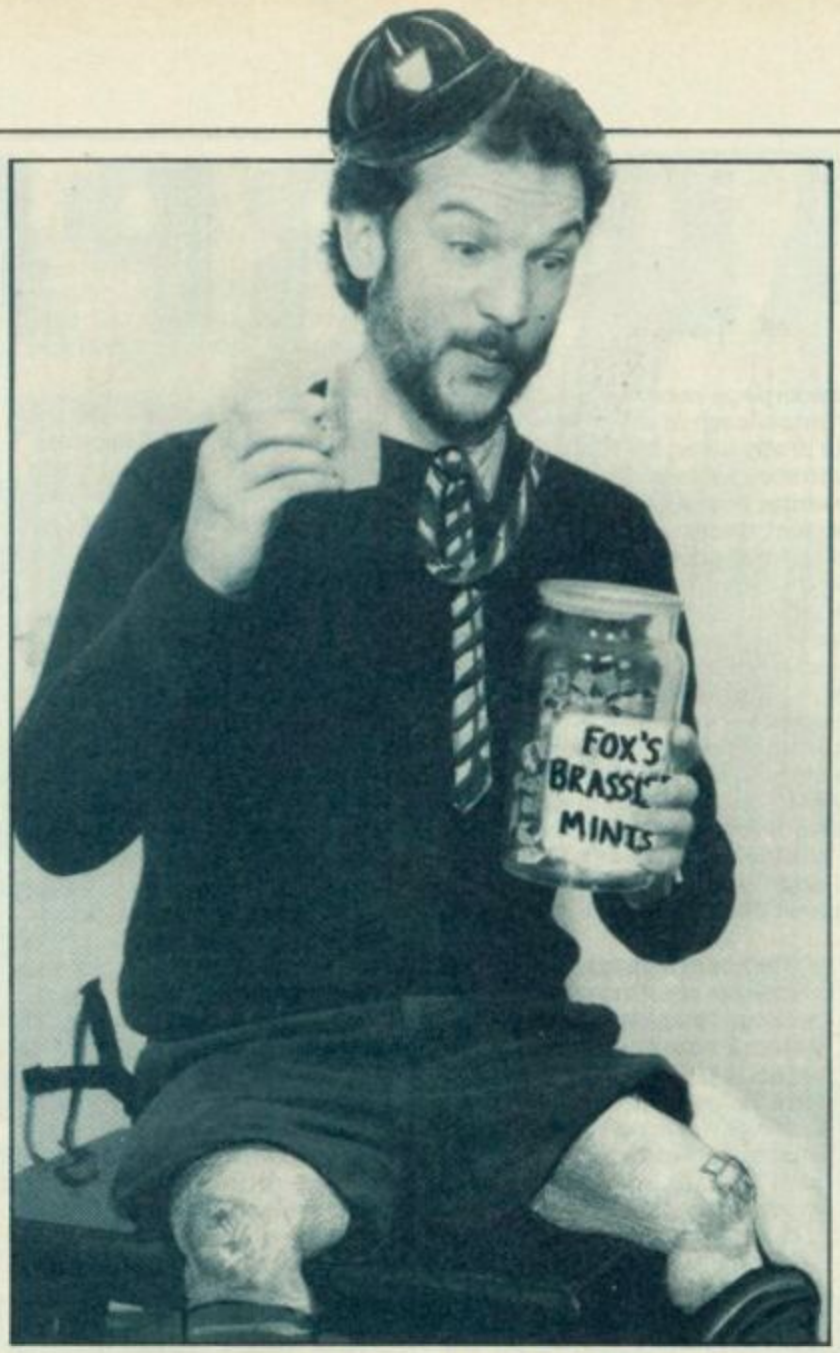
Thank you for a great magazine, it's nice to read a computer magazine that has something for all computer users. Keep up the good work.
Keith Weal, Bourne, Lincs

***If you're purchasing an MSX machine, check out the feature on page 88. No, we haven't seen Hype* yet, but there will be a review of it as soon as we do!**

BEST FOR SYNTHESIS?

Dear Games Machine
Congratulations and many thanks to the music section in your mag. I've been interested in music since I was about eight-years old. I always wanted a computer that could also produce music and clear speech. Since the Atari ST arrived, I was thinking of getting one. But when the Amiga came out, I though of getting both, but one, surely, is better. Please could you tell me which one of these two machines are best for music synthesising, speech synthesising, adding MIDI instruments and tell me all the music programs out for both and the prices if possible? Secondly could you tell me which of these two has the best sound qualities on TV and monitors?
Steven Tang, Hammersmith, London

That's rather a tall question for Readerpage, but Jon Bates will see your plea and surely help out! Hang in there Steven.



IS THAT YOU, MEL?

Dear Games Machine
May I just say that by far the best section in THE GAMES MACHINE is Mel Croucher's investigations. He is very knowledgable in the world of computers, and he delivers the articles brilliantly (especially when he interviewed Pat Bitton of Mirrorsoft on sexism).

Speaking of Mel, a funny thing happened to a friend of mine (Hi Jon) at the ZX Microfair some years back. He went up to the Automata stand, where some drunk was standing on the table, and said: 'Excuse me, are you Mel Croucher?' To which the drunken figure replied: 'No I'm not, he's dead, I'm his mother, my name's Jesus'!

Was that you Mel?

Keep up the good work and do a feature on live Role Playing at LABYRINTHE – it's great.
Gary Doyle, Eye, Suffolk

It could have been – there again, it could have been that old software reprobate Christian Penfold. Drunk seems unlikely too, Mel has been known to spend three days and three nights without sleep, drinking toxic beverages constantly and still be able to interview Loriciel's Nikki Penny with extraordinary sobriety at the end of his binge . . .

CHAFF FROM THE WHEAT

Dear Games Machine,
Firstly, let me congratulate you. I have been buying TGM since Issue 1. I am an Amiga owner and I find your magazine one of the best around for reviews and interesting articles.

Far back in the mists of time, I was a humble C64 owner, and I regularly purchased *C&VG* for two main reasons: Tony Takoushi and the Bughunters. Apart from these two things it was far inferior to ZZAP!64 in every department. ZZAP!64 had perhaps the best review format of all time and a massive letters section, but had neither TT or the Bughunters so I only bought it before Christmas when I wanted to know what games to purchase.

After I upgraded my computer I decided it was time to upgrade my magazine. I have examined several and here are my findings:
AMIGA WORLD: too serious for me. Too expensive for anyone.
TRANSACTOR AMIGA: no games reviews but content generally interesting, if a little advanced. Also too expensive.
ACE: at first seemed good but it is written by remedials with a predilection for useless graphs, my brother buys it so it can't be that good.
THE GAMES MACHINE: neat presentation. Intelligent journalists. Mel Croucher. Affordable. My brother doesn't buy it.

As you might have guessed already, I decided to get TGM.
Robert Crowther, Kibworth, Leicester

Apart from saying 'thank you', there's not a lot anyone here can add to that, Robert! Say 'hello' to your brother though . . .

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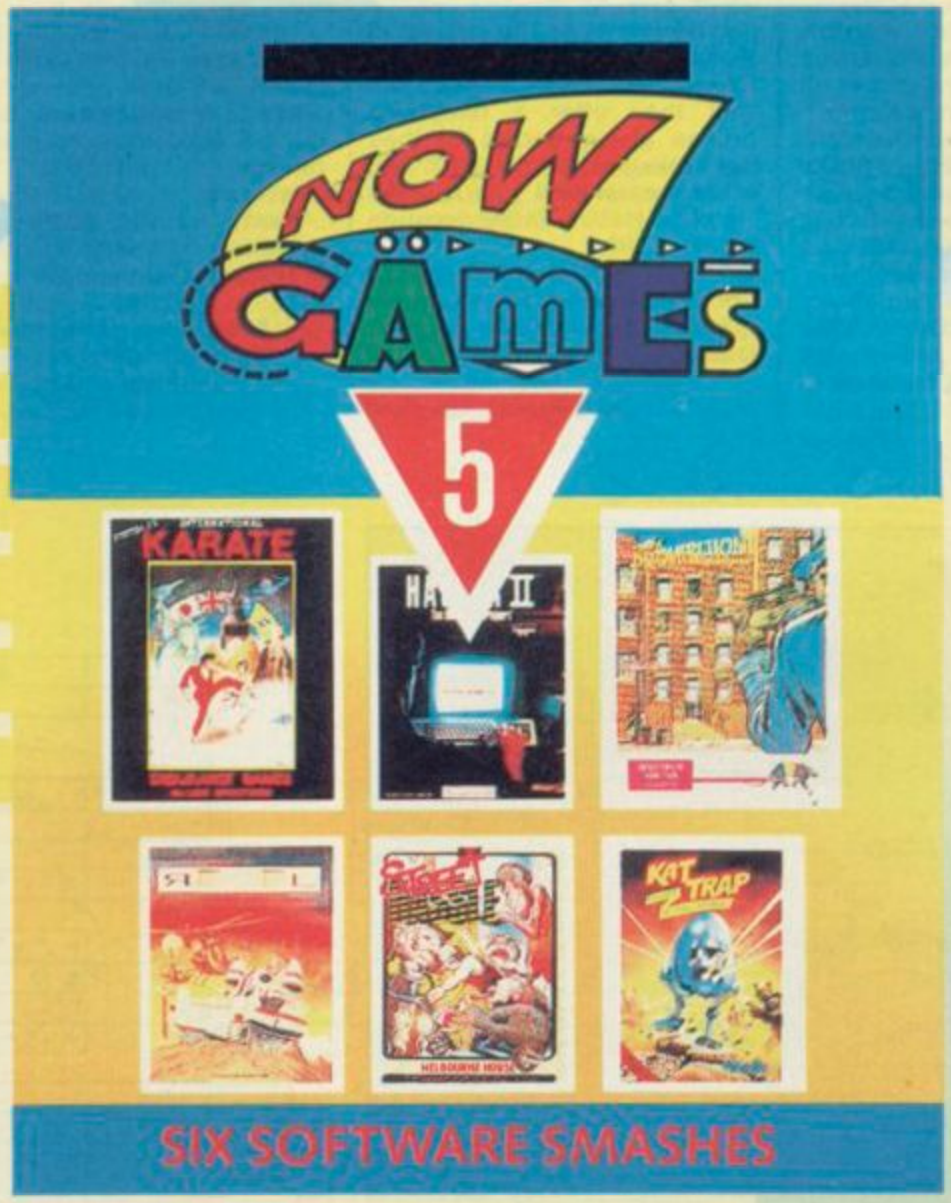

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INFORMATION DESK

THE GAMES MACHINE's regular Help column, with Robin Hogg the man in the hotseat in touch with the industry

First off in this month's Information Desk is a question from Matthew Crawshaw of Lydney in Gloucestershire.

1. I own a Toshiba HX-10 MSX-I and I'd like to know if the MSX-II games *Usas* and *F-1 Spirit* (reviewed in TGM006) are compatible with my MSX-I.

***Usas* is not compatible with the MSX-I Matthew, but things aren't so desperate, because *F-1 Spirit* is!**

While we're on the subject of Konami and their software, Konami would like to point out that they offer a telephone hotline giving details of their new releases for the MSX and other machines. Ring the Helpline Hotline (after 5pm) on (0626) 56789.

Moving on, Stuart Davidson **of Lochvale, Dumfries has a simple question to ask the Information Desk.**

1. Is Atari's *720°* from US Gold coming out on the Atari ST? If so, when and how much?

Sorry to disappoint you Stuart, but US Gold have no plans to release it on the 16-bit machines.

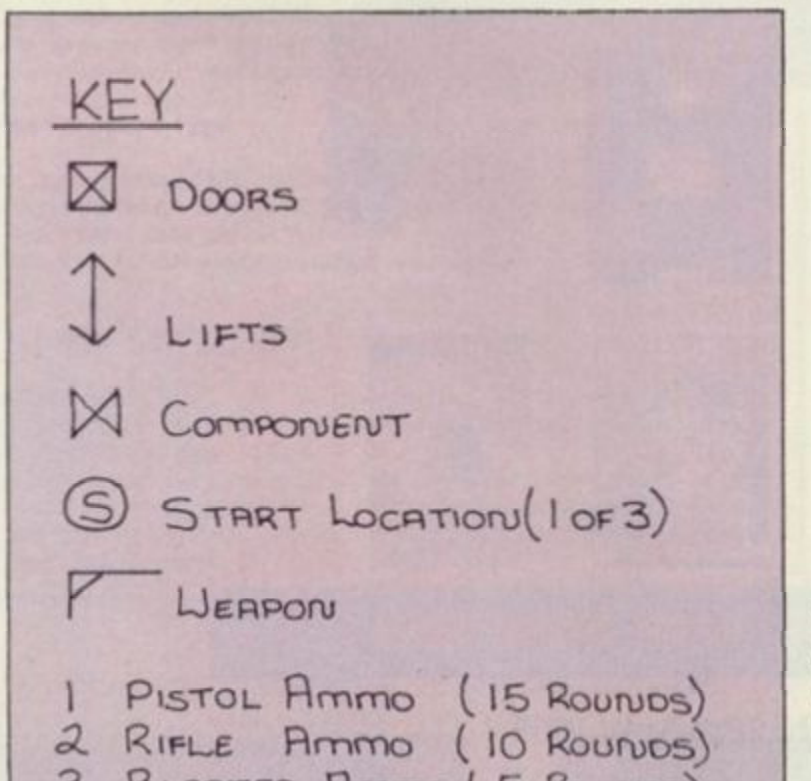
Next question comes from another MSX owner, J Coombes **of Holbury, Southampton.**

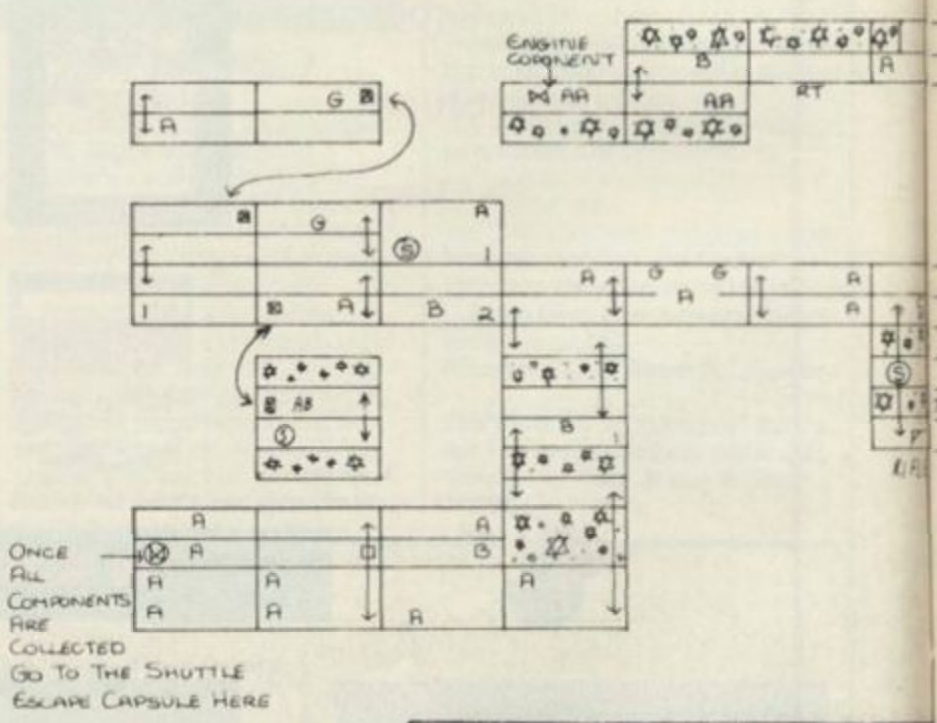
1. Where did THE GAMES MACHINE get its MSX-II machine from, and how much did it cost you?

The Sony MSX-II sitting in THE GAMES MACHINE offices (next to the Amiga and the Amstrad PC . . .) was purchased from Nightdare Limited (see the competition on page 26) and is priced at £299 (plus VAT.) Nightdare can be written to at: Nightdare Limited, *11(b) Walnut Road, Chelston, Torquay, Devon, TQ2 6HP*, or you can ring them on (0803) 606146.

ST owner Scott Ritchie **would like to know the answer to:**

Is Océan's *We Are The*

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Champions coming out on the ST?

Sorry Scott, but Ocean's latest compilation is strictly 8-bit only. Two of the games on the compilation, *Renegade* and *International Karate +* aren't available on the ST (although an ST version of *Renegade* was planned some time ago, since then we've heard nothing.)

Jimmy Nielsen **from Denmark poses a question concerning the new technology of CD-ROM.**

1. What machines are on the market, which computer can I connect them up to and who do I contact?

Atari have produced their own CD-ROM machine, which also works as a respectable audio CD player too. The CD-ROM is capable of linking up to an Atari ST. Sony and Philips are also working on CD-ROM drives (see side panels of 2001 – A MEMORY SPACE ODYSSEY on page 29). For more information, Atari can be contacted on (0753) 33344 or written to at: Atari, *Atari House, Railway Terrace, Slough, Berkshire, SL2 5BZ.*

Stephen Oakman **of Chesterton in the Cambridge area has some tips for Mirrorsoft/FTL's excellent roleplaying game *Dungeon Master.***

When selecting a team to enter the dungeons, choose at least one person with high Mana, because the capability of casting magic is needed to complete the game. When you are first playing, it is best to choose the Resurrect option: as you become more experienced it is a lot better to choose to Reincarnate. This gets rid of all the old skills but keeps the same characteristics such as Stamina and Mana. It may take a while to get back the same skills, but when you do get them they are much more powerful.

Stephen also lists the various monsters in the game and how to kill them, including:

Rock Monster: tough to defeat and will also poison you, so find a door that closes with the push of a button, and use it so it slams down on its head; the monster is slow, so it dies before it can move.
Invisible Green Ghosts: won't die unless you hit them with a vorpal blade or dispel them with the staff of Mana.
Pink Worms: hard, fast and poisonous – a nasty combination! Closing a door to block them off works, but they soon move out of it. Ten fireballs work best and once they are dead, the slices they leave can be eaten.
Skeletons: carry shields which block your blows, but they are easily killed.
Eyeballs: cast magic at you when they open. They cast three different spells (Fireball, Open Door and Weaken Beings.) Three fireballs are enough to get rid of them.
Hooded Magicians: easy to kill, although they do cast fireballs and a variety of other spells. They also vanish out of sight and then return as soon as you turn round to look for them.

The final question (and a tip) comes from Andrew Sanders **of Cambridge.**

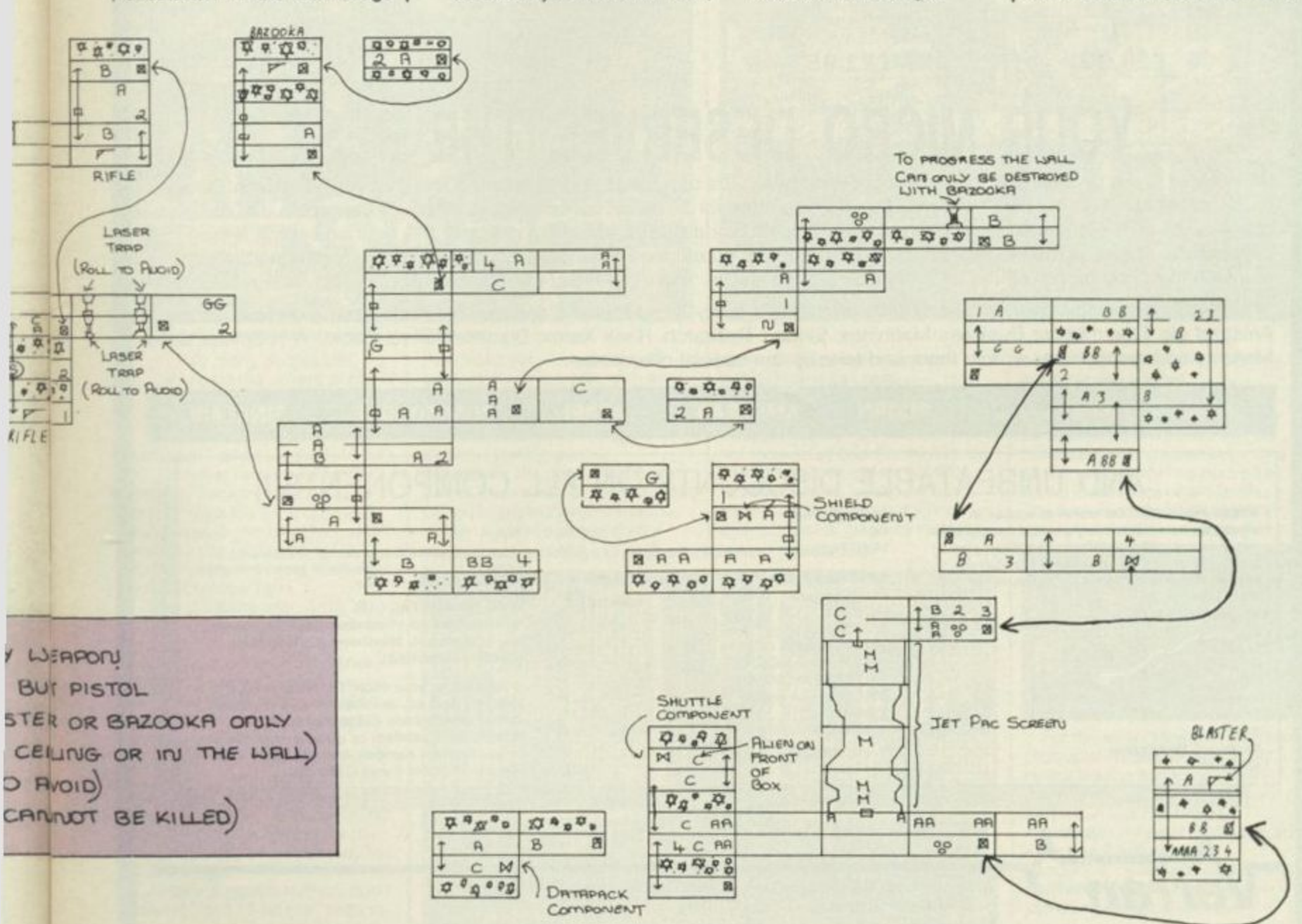
1. As my favourite arcade machine is *Dragon's Lair* could you tell me if the laser disc game from Microdeal, *Journey into the Lair*, is going to be released on the Amiga?

***Dragon's Lair* is also one of my favourite coin-ops, but I'm sad to tell you that Microdeal tell me they have no plans yet to release it on the Amiga.**

Andrew also has a quick tip for Firebird's *Bubble Bobble*.

Capture and kill all but one of the monsters on a screen and then jump around blowing bubbles, making sure the last monster in his bubble doesn't mix with them. Then burst the monster's bubble before he escapes – and all the other bubbles turn into bonus food to collect. Also, when the monsters are gone, go to the far left or right of the screen and blow against the wall for extra points before the next screen begins.

That's it for this month's installment of Information Desk. If you have any questions to ask about the world of computers and electronic entertainment, tips on computer games or solutions to reader problems to proffer, write to INFORMATION DESK, THE GAMES MACHINE, *PO Box 10, Ludlow, Shropshire SY8 1DB*. On-line readers can MBX us by using our I-D (TGM).



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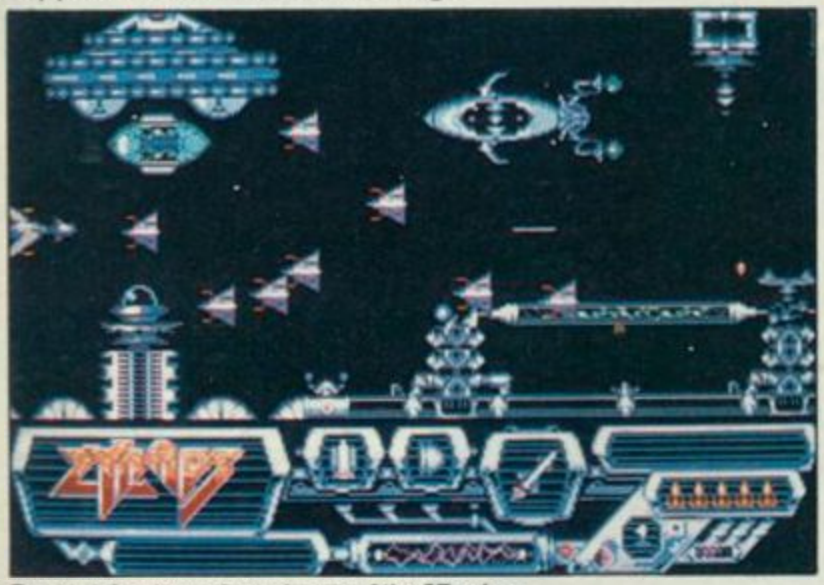
FUN FAIRS AND RUBBER SHIPS

Andrew Hewson has quite a bit to say about the future of software (see page 29), but Richard Eddy went to the outskirts of Abingdon to find out a bit more about the present . . .

Hewson's name has been synonymous with original quality computer games since 1983 (if you will forgive just a few teeny slips on the very earliest BASIC Spectrum games . . .) Five years on the company remains one of the very few independent producers able to maintain its image of quality, more often than not beating the big boys of the industry at their own game. Like many other software publishers at the moment, Hewson is diving into 16-bit in support of its current 8-bit range.



Zynaps takes to uncharted parts of the ST galaxy

While many people still regard the advent of the 16-bit computers a recent happening, **Andrew Hewson**, director of the company, was playing with 16-bits in 1973 when he worked for the British Museum – nothing remotely like the ST and Amiga we're used to, the 16-bitters of '73 were the size of a small room; screens were not used, data was output on paper tape.

Now, 15 years later, he is attacking them again with six products ST and Amiga and beginning in June with the shoot-'em-up ***Zynaps***. Commenting on the 16-bit scene Andrew says: 'It's little different from our current 8-bit market. Everyone wants enjoyment from a game but the 16-bit machines offer more noise and a lot more colour. The market is still in its infancy, for instance, no one really knows how to get the most from the Amiga, nobody has had to try yet.'

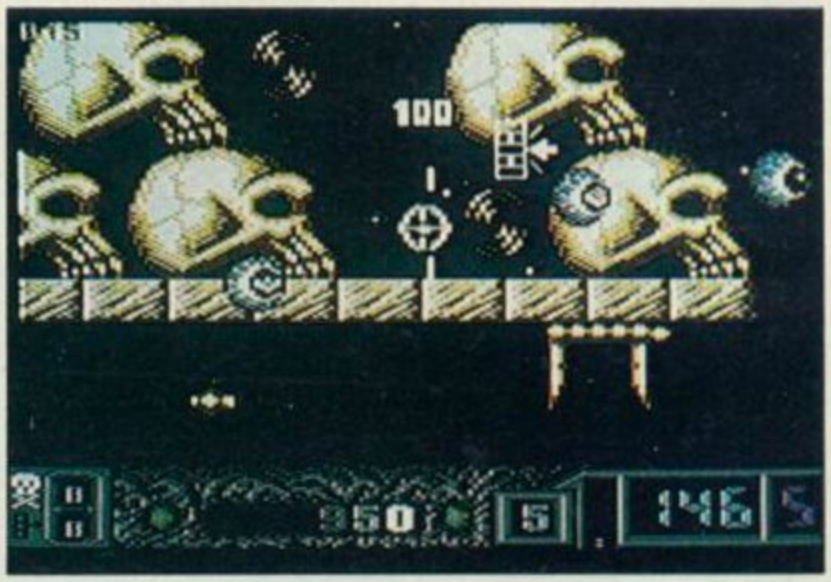
Andrew suggests that you don't need to push 16-bit machines to their limits yet – buyers appear content, if not grateful, with what is currently available – but nevertheless any game about to be published goes through a rigorous testing period. ***Marauder***, the next major 8-bit game, is currently undergoing its period of perfection-pursuance, written by Hewson newcomer **Mark Kelly**. Like most of Hewson's programmers he works out-of-house. However, Andrew is keen to stress the importance of regular contact, 'I mean continual updates on the project,' he says, ' and sometimes bringing programmers in-house for a while to keep their interest alive and to inject new feeling and ideas into the game.'

Set for release in late June, ***Marauder*** is a vertically scrolling shoot-'em-up taking the player, inside the Battlecar, over four types of terrain. At its current state it looks like a good *Commando* variant, but naturally the Hewson development team want it to be something special – ideas are flying around as I write.

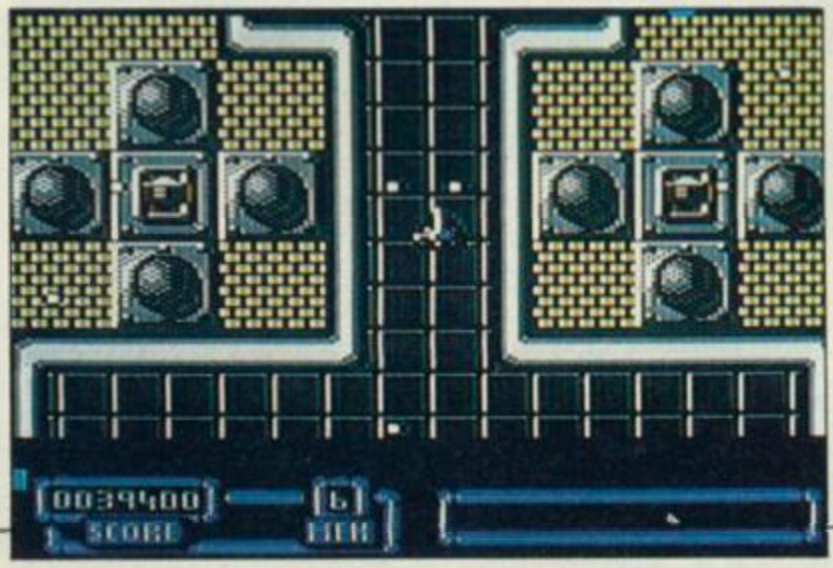
Zynaps is Hewson's first ST and Amiga product. 8-bit versions did exceedingly well and it was recently voted Best Shoot-'em-up of 1987 by the readers CRASH. Spread over 16 levels, it follows the 8-bit gameplay, but spiced up with additional graphics by **Pete Lyons**. The screen shot is from an early version – watch out for a full update sometime in the summer.

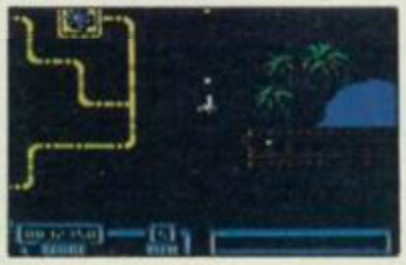
After two months of battling with ***Marauder*** you will probably be ready for another dose of Hewson gamesmanship – the late August title ***Netherworld*** should take many players' fire-button-pumping fancy. ***Netherworld*** – a strange cross between *Boulderdash* and a graphically brilliant space-shoot-'em-up – is written by **Jukka Tapanimaki**, a Finnish (you thought 'Japanese!) programmer who also wrote English Software's *Octopolis*.

Starting in the first of 24 different levels the objective is to guide a rubber (!) ship around the scenery, avoiding aliens while accumulating diamonds from each level. In a similar fashion to *Boulderdash*, diamonds can be created by hitting a particular type of alien with a floating pod, often found in ***Netherworld***'s levels. The screen shot shows an early version of the Commodore game.



The futuristic roadways of Hewson's Marauder *– C64 screen*





For the winter Hewson has three products: ***Roadstar XRi***, a 3-D racing blaster set across inter-planetary roads, out on all major formats in late September, ***Azimodius – Angel Of Death***, an arcade-adventure set in dungeons, caves and castles and **Raffaele Cecco** has the task of providing Hewson with the

Christmas biggie; can he produce something even better than *Cybernoid*? Wait and see.

So there you have it – Hewson's plans for the rest of the year. But what of 1989? Will he continue providing us with original games or succumb to the license trap? Anrdew thinks not: 'We will never do an arcade license because that shows you're defeated and can't design new games of your own. Film licences are a possibility, but you can't really do them justice on a computer yet. What I'd like to see is Hewson games being licensed out to an arcade producer.'

He gives an optimistic chuckle, shrugs his shoulders and sits back. Surrounded by his files and papers, I get the feeling he would much rather be in the computer room waggling the joystick. 'You're like a ticket collector at a funfair,' I quip.

Andrew thinks for a second and answers: 'Yeah, I probably am, aren't I?'

Scaling the rooftops in Last Ninja II

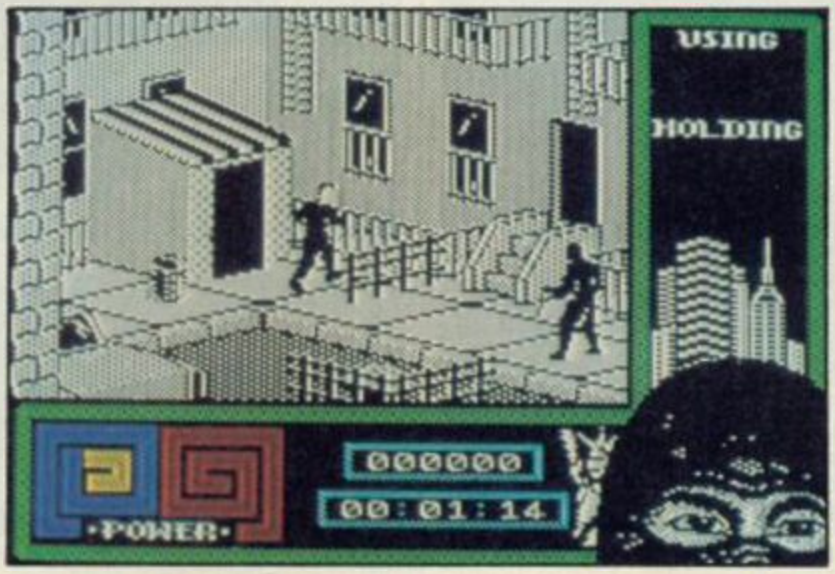
DOING THE ORIENTAL TIME WARP

Last year **System 3** had a massive hit with their oriental arcade/adventure/combat game *The Last Ninja* – so much of a hit that it became the biggest-selling Commodore 64/128 game of 1987. And as the old proverb goes: if something is worth doing once, it's worth doing again. With 8,000 man-hours of development and planning already invested in the project, System 3 are set to release ***Last Ninja II***.

Don't let's argue about how paradoxical a title like ***Last Ninja II*** is – be content that it enjoys the same high standard of graphics and playability which made the original a hit – and it's crammed full of original ideas.

System 3's Managing Director, **Mark Cale** says of it: 'We're conscious of game players' demands. In fact many of the suggestions we received from players of the original have been incorporated into ***Last Ninja II***.' So it's your fault, guys.

The action takes place in modern-day Manhattan where the Ninja has been pulled through a time warp to save the 20th Century from the clutches of his long-time enemy Kunitoki (Japanese, not Finnish). The player enters into combat with modern day enemies too, there are muggers, killers, mad motorists and Kunitoki's army of Henchmen.



Ninja II enters a Manhattan's park – confronted by a unpleasant looking cop –Commodore 64/128

The back streets of Manhattan is where you'll find the henchmen ready to attack – Spectrum screen

The player is taken through many areas of the city – parks, sewers, dangerous back streets and rooftops – hardly the famous bits – all displayed in detailed isometric 3-D. The Commodore 64/128 game, written by **John Twiddy** (*Tau Ceti*), is atmospherically coloured and uses the same routine to build each screen as *Last Ninja*. The playing area on the Spectrum version is monochromatic, 'but colour could have been used', says **Mev Dink**, who is programming it, 'but it would have been untidy and slow – and, anyway, I think the mono colour scheme adds to the game's atmosphere'.

Mark Cale intended to subtitle the game *Back With A Vengeance*, but when our Showbiz correspondent reminded him that it was also the title of Dame Edna Everage's latest stage show he said he would have to think about it.

Amstrad CPC, Atari ST and MS DOS conversions are also planned with a June release date for the 8-bit versions. The pack comes complete with a rubber shuriken (intended to be used as a coaster), a metallic *Ninja II* badge, a Ninja mask and a poster and is intended to retail at £12.99 for 8-bit cassette versions, £14.99 for Commodore 64/128 and Amstrad CPC disks; 16-bit Ninjas cost £19.99.

IN PRODUCTION

GET SET FOR SUMMER

Ocean is set for summer with three new arcade conversions beginning with ***Operation Wolf***, licensed from the Taito original which currently runs high in the arcade charts. The coin-op machine comes in a standard cabinet but with a machine gun mounted on its front – on the conversions you're going to have to do without this and line your targets up through the on-screen crosshairs.

Converted from the Taito coin-op, Ocean proudly present Operation Wolf – Commodore 64 screen

There are six stages of target shooting, each with a different scenario: an enemy army base, a jungle scene and so on. Ocean programmers **Colin Porch** and **David Blake** are working on it, for releases on Commodore 64/128, Spectrum and Amstrad CPC.

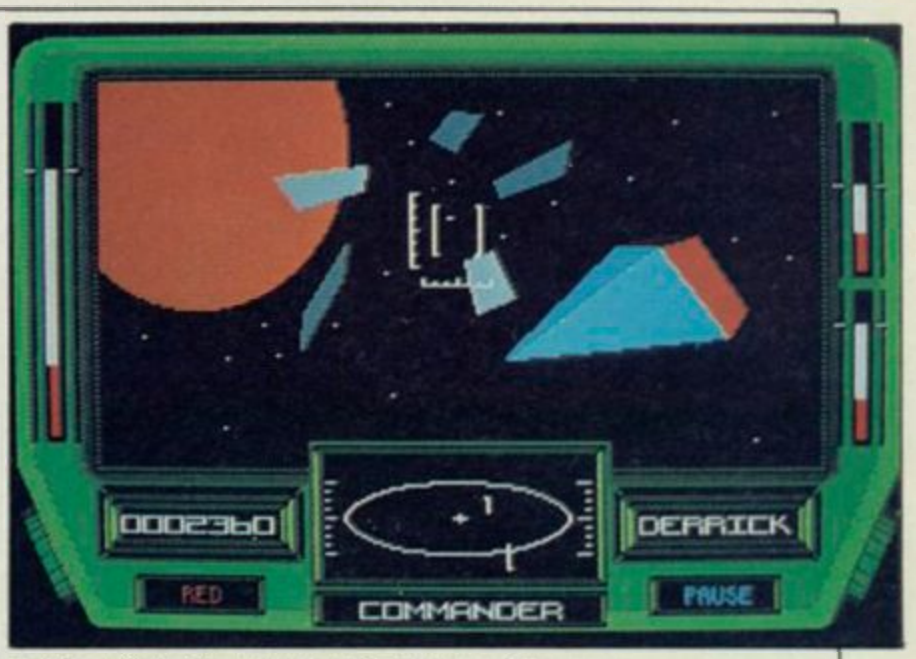
However, if your shooting desires are sky-high, the conversion of Konami's aerial combat game ***Typhoon*** should delight you. ***Typhoon*** comprises eight sections, three displayed in 3-D perspective (à la *Space Harrier*) and five in normal 2-D vertically scrolling sections. Will the coin-op's impressively large, high-quality sprites and fast animation may prove difficult to reproduce on home micros? 'Yes, it's going to be a bit of a tough job,' agrees Commodore programmer **Zak Townsend**. 'The speed and animation of the Konami arcade version of ***Typhoon*** is really pushing the hardware to its limits, so you can see how tough it's going to be. The start sequence is amazing – the player's plane spirals down from the heavens, in first-person perspective, through the clouds and over the deck of a carrier which is also spinning . . . On the home micros we're cutting the spinning effect down a bit . . . '

Rest assured, ***Typhoon*** is in good hands with Zak – his previous titles include *Army Moves* and more recently the excellent *Platoon*. Early days yet for the third conversion – that of ***Guerilla Wars*** from SNK. More news of that next month.

DON'T RING US . . .

The heavily advertised ***Ring Wars*** from **Cascade** is now due for release on Commodore 64/128, Spectrum, Atari ST, Amiga, Amstrad CPC and PC. Our screen shot is from the ST which, like the Amiga and PC, features solid 3-D graphics; 8-bit graphics are displayed as vector line drawings.

Ring Wars dumps you slap-bang in the middle of a solar system full of Ring Worlds, strange robotic constructions which destroy anything and everything in their path – including planets. It's up to you to defeat them using an array of intelligence-gathering devices and, no doubt, a few well-placed laser shots.

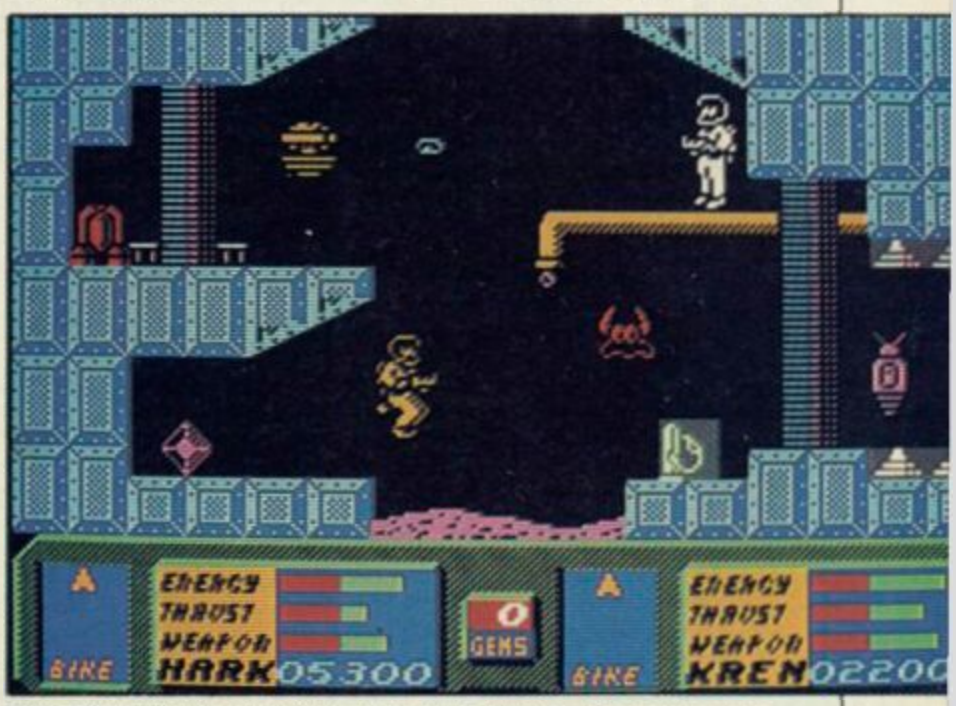


Battling with the Ring Worlds in* Ring Worlds *– ST screen

Cascade's long delayed ***19 – Boot Camp***, the game of the song, now has a 'firm' release date . . . May 30. And there are whispers of a totally new project: 'It's a bit odd, off the wall – but is linked with our software . . . ', says Cascade's **Liz Sandey** in that 'very excited but I'm not giving anything away yet' voice. However, TGM has been promised first look in, so watch this space.

TOP GEAR

US Gold go into overdrive in May with a conversion of Atari's ***Road Blasters***. Similar in appearance to *Out Run*, ***Road Blasters*** is a first-person perspective driving game of the future set across three types of terrain. Your car starts with a pretty wimish gun on its front, but the further around the hazard-packed courses you go, the bigger and more destructive are the weapons collected, used to blast other racers from the road. Purple cars and landmines have to be avoided, however, as does the stream of bullets that hail from the roadside. ***Road Blasters*** did well in arcade popularity stakes due to its action packed content, excelling *Out Run* in many cases. Look out for Commodore 64/128, Spectrum and Amstrad CPC versions; and keep your fingers crossed that it's better than the *Out Run* conversion.



One of Gremlin's* Blood Brothers *without his jet-bike – Spectrum screen

Meanwhile **Gremlin Graphics** programmers have got their skates on for – ***Skate Crazy***. Roller skating safely around a course filled with assorted ramps, slaloms and hazards is the objective – all within a set time limit. The better your performance at the spins and flips the higher your street cred rises. Alternatively jump on the jet-bikes for Gremlin's ***Blood Brothers*** a tale of blasting gem-stealing aliens out of the skies. Both ***Skate Crazy*** and ***Blood Brothers*** are for the Spectrum, Commodore 64/128 and Amstrad CPC formats in the near future.

Just missing this issue was US Gold's ***Dream Warrior***, an arcade-adventure-cum-shoot-'em-up with a positively warped storyline: the future is governed by one force, Focus, and rebels are dealt with in Dream Wars, which,

A Konami coin-op conversion – fly your craft down towards the mother ship and create mayhem

Burn rubber with US Gold's conversion of **Road Blasters** *– Commodore 64/128 screen*

though not killing anyone, sends the warrior totally insane. A team of four astral scientists, known as Asmen, have mastered dream control and plan to overthrow Focus. However, three Asmen were found and are currently being tortured by the ultimate dream demon, Ocular – the fourth Asman must save them. Guess what? You're Four. A bizarre collection of monsters and traps await you in a journey through the many dream sections, a trip to take shortly on Spectrum, Commodore 64/128, Amstrad CPC and PC.

NO GREEK TRAGEDY

Better Dead Than Alien is the title of **Oxford Digital Enterprises**'s (ODE) first release under their own label **Elektra**. Starring the hero Brad Zoom, it's a spoof shoot-'em-up for Atari ST and Amiga. Missile-to-missile combat through 25 levels against swooping hordes of aliens can be played by one or two players. Due for release in May (it contains a copy of the *Brad Zoom* comic strip), both versions are priced at £19.95.

For an autumn release, Elektra have a project currently titled ***Steven's Wonderful Game*** . . . the explanation is its programmer's name: **Stephen Green** (*Trivial Pursuit, Sailing, Hunt For Red October*.) ***SWG*** involves 50 interconnected playing areas displayed in first-person perspective, set in a mystical land through which the player wanders meeting many characters. Despite its complexity, the game is designed to be immediately playable – ie, you can shoot lots of things but you won't get far without using your brain. Communication between player and characters is shown in an icon-driven menu (it's a green splodge at the moment.) The game is still in development, with lots more to go in including a modem link feature allowing more than one player to compete.

BLUBBER ABOUNDS

From **GrandSlam** comes a sad, but cautionary, tale of a carpark attendant who haunts the minds and wallets of the **Teque Software Development** team. And they've written a game all about him – ***Chubby Gristle*** is published in May. Chubby, a rather portly fellow, weighs in at one ton, and faces his most energetic adventure ever. Bounding through screen upon screen of platform action (Teque were the people behind *Monty Mole*), Chubby attempts to gain weight by collecting all the food he can on 21 screens. Having done so, he returns home to Mrs Gristle and produces small Gristlettes. Bounding blubber fun on your ST, Amiga, Commodore 64/128, Spectrum or Amstrad.

After all that flab-flop a quick game of footy wouldn't go amiss and GrandSlam should be able to help you with ***Peter Beardsley's Football***, again written by **Teque**. Playing throughout Europe, with a selection of strips, it's another attempt to produce the best football game ever. An animated referee and commentator keep the player up to date with the performance.

More football is on its way from **Addictive** in the shape of ***Football Manager II*** by the venerable original's **Kevin Toms**. It's a complete rewrite (the original started on the ZX-81 and still sells well!). Graphics and match presentation, match action and team selection tactics have been redesigned, the easier to follow your team's progress. Teams are picked from any of four divisions or you hunt for international players and build up your own team. Experience ***Football Manager II*** for yourself in June on Spectrum, Commodore 64/128, Amstrad CPC, Atari ST Amiga and PC.

SUPER GIANA BROS? . . .

Well, nearly . . . very nearly indeed. German publisher **Rainbow Arts** have set an end-July release date through **Go!** for ***The Great Giana Sisters*** a game inspired by *Super Mario Bros*; so you know what to expect – a series of 32 horizontally scrolling sectors across a world of dreams. Gianas' travels take them through overground routes, dark caverns and complex passages collecting diamonds. Deadly creatures of varying ugliness infest the levels, which are defeated by squishing them with a well placed jump. However, extra powers can be collected from head-butting strength to seek-and-destroy missiles. And a larger foe waits at the end of every fourth level. Watch out for a full review of ***The Great Giana Sisters*** next month on Commodore 64/128 and Amiga formats. Also coming soon from Rainbow Arts is an Amiga arcade-adventure dubbed ***In 80 Days Around The World***.

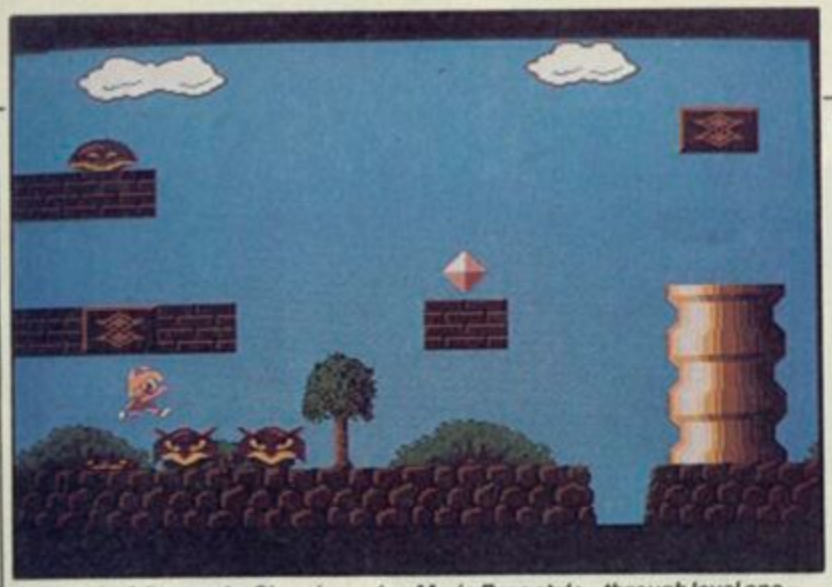
Corruption: to impair integrity, virtue or moral principle . . . an attack on computer games perhaps? But actually **Magnetic Scrolls**'s new game aimed at the hardened adventurer. ***Corruption*** (**Rainbird** – June) is set in the high-flying world of finance full of commercial intrigue and double-dealings. Framed by your partner, with the prospect of being slung in jail, you have to be as slimy as everyone else in the game to wriggle out of tight corners. Unlike previous Magnetic Scrolls adventures, the puzzles revolve around manipulating other characters and extracting information rather than collecting objects and using them. Packed full of marvellous graphics (see screen shot), ***Corruption*** should be released first on the Atari ST, Amiga and PC with other versions to follow.

At last you don't need to buy an Archimedes to be able to play ***Zarch*** (TGM002), the game that amazed everyone with its superfast 3-D graphics, because **Firebird** have contracted ***Zarch*** author **David Braben** (*Elite*) to write the conversions. It's due to appear on the Atari ST and Amiga under the new name of ***Virus*** and the release date is June.

GREAT SPACE RACE

Space Racer is the next game from ***Loriciels*** after ***Eddie Edwards Super Ski*** (review page 53). It's due for an early autumn release across Spectrum, Commodore 64/128, Amstrad CPC, ST and PC formats, and takes the form of a jet-bike race over three different landscapes. The tracks vary in difficulty, first being a straightforward keep-on-course race against other bikers, the second includes far more twists and turns, while the third puts landmines and pylons in your way. The gameplay is simple, a matter of dexterity really, but the action becomes very, very fast on later levels making. It is actually completed on the ST, written in France, but Loriciels (UK) want to wait until all the conversions are finished.

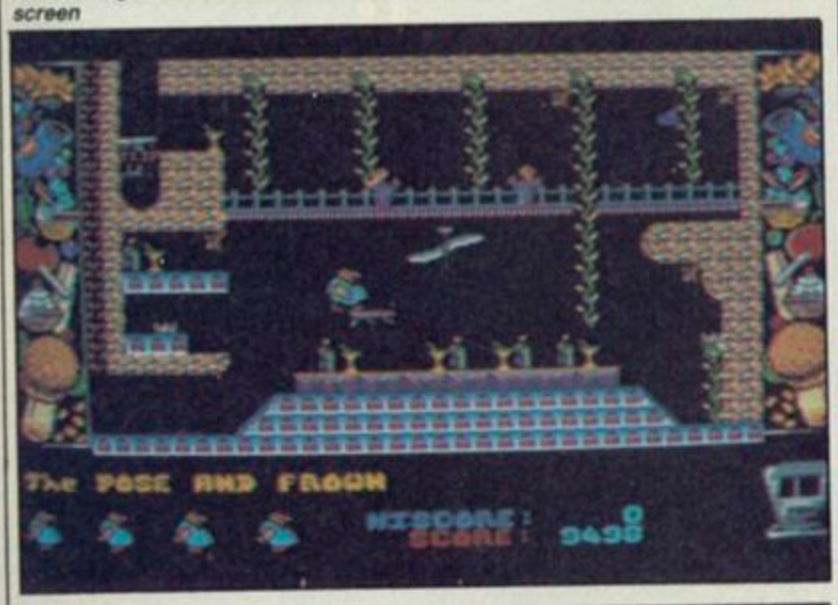
Beyond your wildest? **Dream Warrior** *from US Gold – Commodore 64/128 screen*

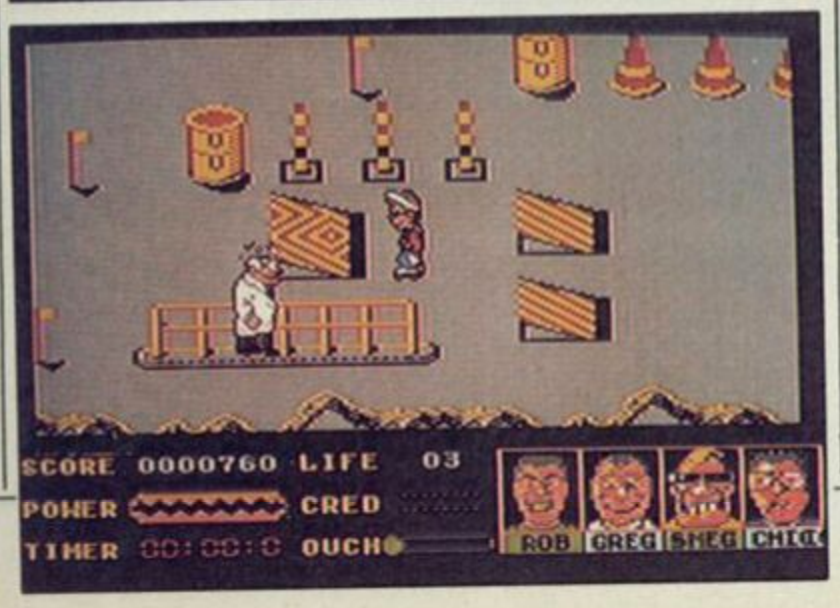


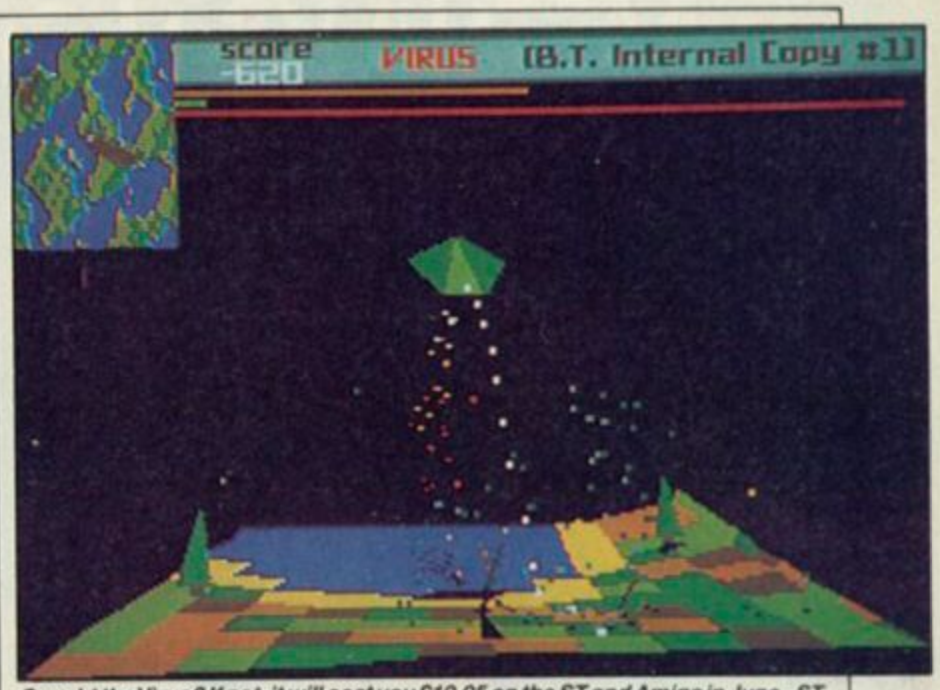
In search of diamonds, Giana bounds – Mario Bros style – through level one – Amiga screen

The referee and commentator watch closely over Peter Beardsley's Football *– ST screen*

Have a mega munch with GrandSlam's Chubby Gristle, *he's the fat one – ST screen*

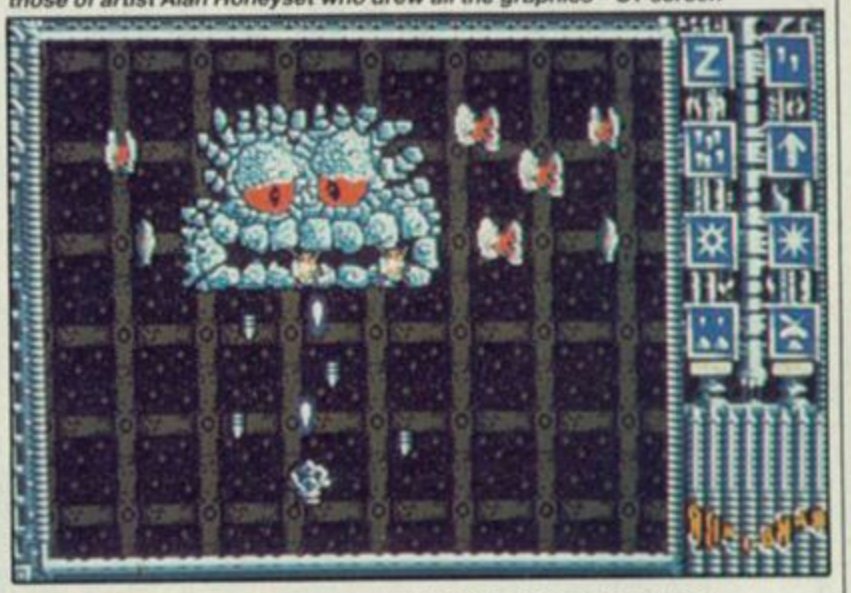






Caught the Virus? *If not, it will cost you £19.95 on the ST and Amiga in June –ST screen*

Taking time out from the city in Corruption. *The carved initials on the tree are those of artist Alan Honeyset who drew all the graphics – ST screen*

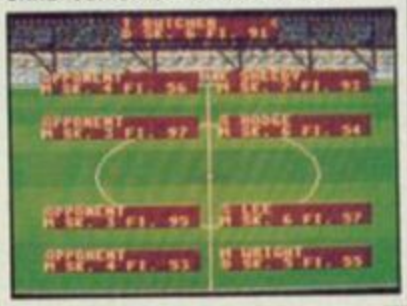


Better Dead Than Alien

SWG

Crazy skating around the car park – much to the annoyance of the attendant – Commodore 64 screen

The classic strategy 8-bit game at last arrives – complete with enhancements – on the Atari ST



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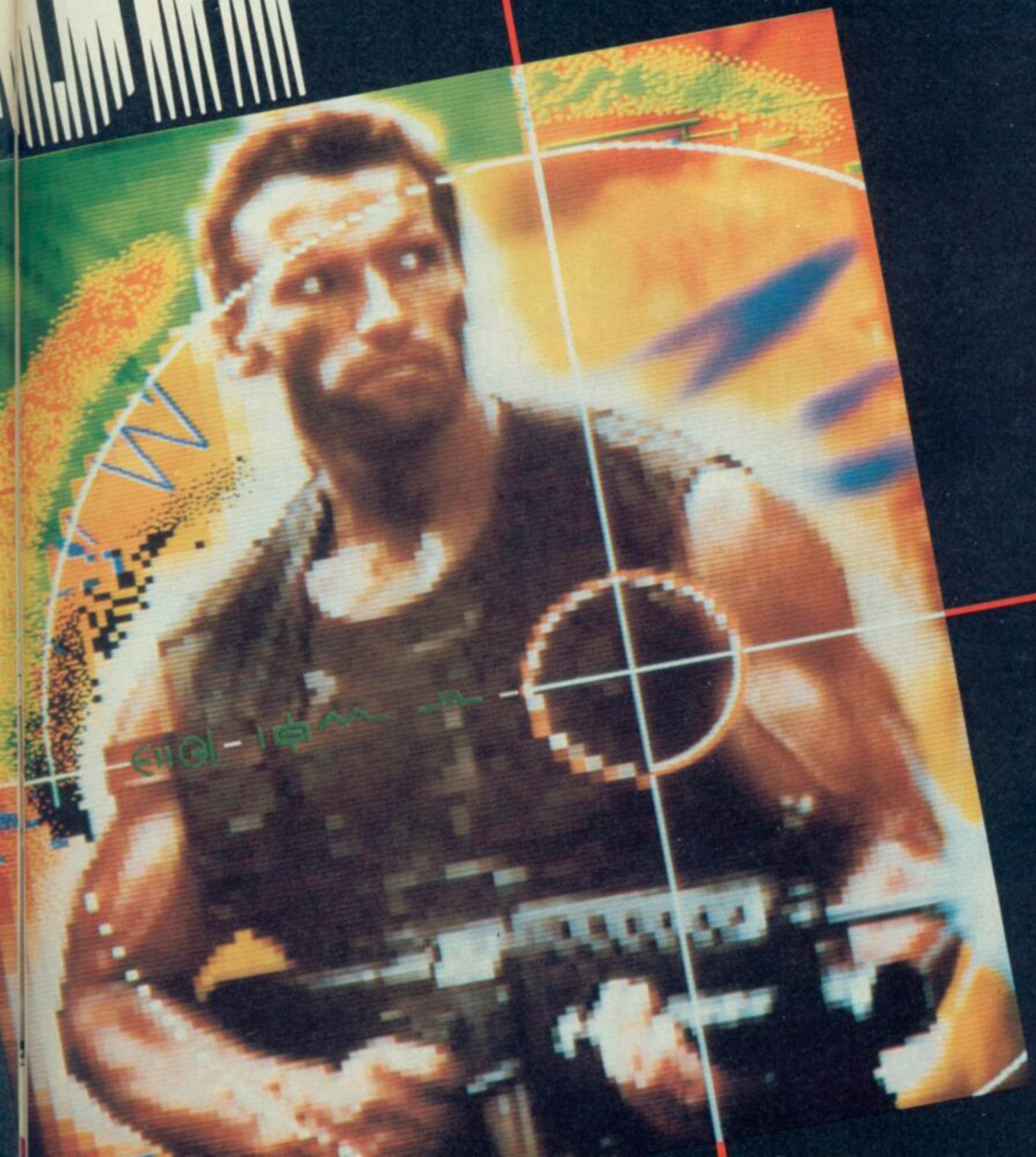

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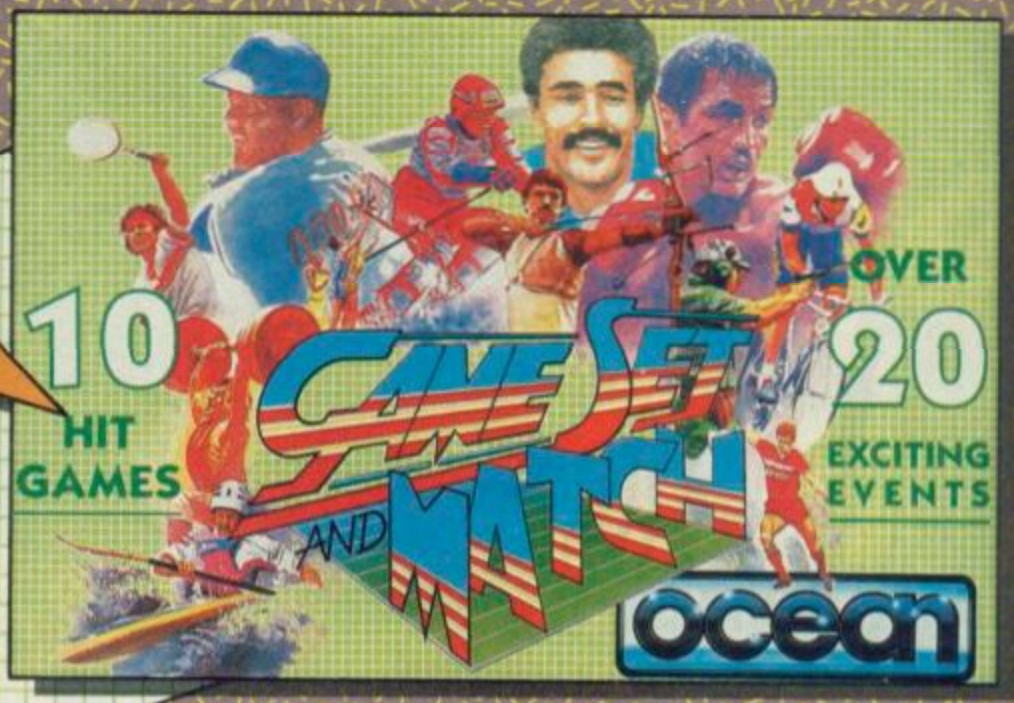

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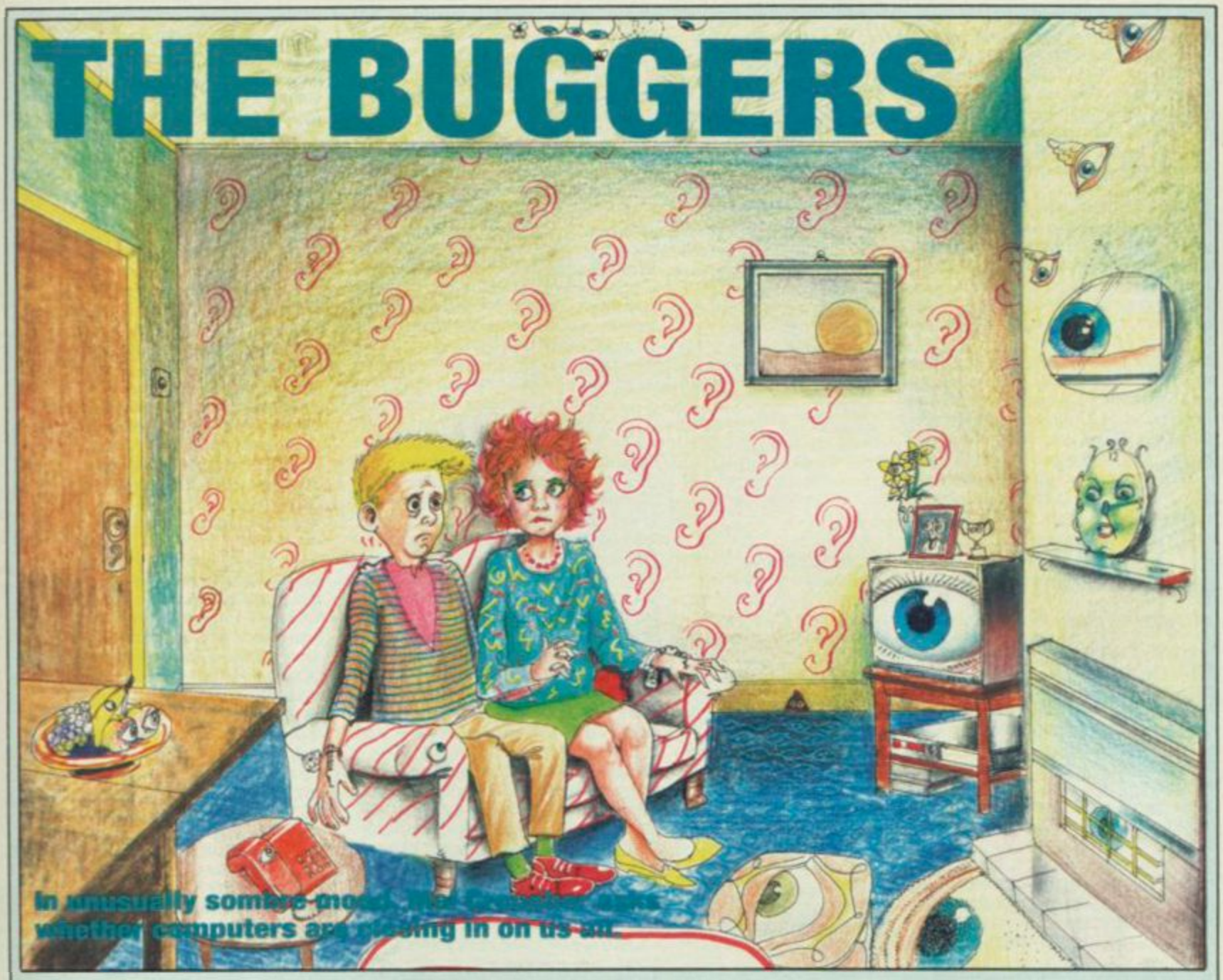


In unusually sombre mood, Mel Croucher asks whether computers are closing in on us all.

"Smith!' screamed the shrewish voice from the telescreen, '6079 Smith W.! Yes you! You can do better than that, you're not trying! . . . War is peace, freedom is slavery, ignorance is strength"
George Orwell, *Nineteen Eighty-Four*

On page 29 of this month's THE GAMES MACHINE there are predictions about the state of software by the year 2001, a date that is as much associated with a technofuture as 1984 was with a political future. In my investigation this month I ask if we are nearer to both scenarios than we realise. My first guest is a man who has long been in the maelstrom of British computing.

BRUCE EVERISS

Operations Manager, Code Masters

MEL: What do you reckon, Bruce? Are we nearer to Arthur C Clark's *2001* or George Orwell's *1984*, Big Brother State?
BRUCE: We live in a Big Brother State, we always have done. They freely listen to any telephone conversation anyone makes at any time. The only reason that it hasn't yet become oppressive is that they don't have the manpower.
MEL: But manpower is being replaced by computer power.
BRUCE: The MI5 computer continually listens in to thousands of conversations. But it doesn't tape them unless a key word is overheard.
MEL: Say the word, Bruce.
BRUCE: I've got a friend who works in Whitehall, all the phones are monitored there and when I call him I deliberately use as many key words as I can. The miner's strike was a classic example, when every mining official was tapped, and one of the key words was 'picket'. Within half an hour of bugging the system jammed up. It just couldn't handle it.
MEL: In the near future we may become a cash-free society, everything done via plastic cards. We will also have the infamous encoded new European passports, starting in 1992. Won't this produce a two class society, like George Orwell predicted, with people who don't have a bank account, or a permanent address or medical records becoming 'Non Persons'? What happens to the sick, the insane, people on the dole?

" . . . wherever you go your plastic cards leave a route map of your movements and dealings." BRUCE EVERISS

BRUCE: Anyone who's been to America knows that it's already happened there. You've got to have a credit card, which can be run through a computer. Hotels, gas stations, supermarkets, car hire, wherever you go your plastic cards leave a route map of your movements and dealings.
MEL: Yes, but these computers are now being linked up to your criminal, medical, educational and tax records.
BRUCE: Criminal records are protected by something called The Rehabilitation of Offenders Act, where your crimes are wiped off the record, depending on the severity of what you've done.
MEL: Do you really believe these files get wiped?
BRUCE: Are you implying that the people who make the law break the law?
MEL: I'm neutral, I want your opinion.
BRUCE: Well, I suspect that criminal files are only wiped off the active computer databases. I also suspect they can be retrieved if necessary.
MEL: What about a child who is having a hard time at home, and gets labelled as 'disruptive' on her file? This record will follow her through, affect job interviews, credit ratings . . .
BRUCE: This mortal coil! IBM wouldn't hire her if they purchased her computerised profile.

PRESS ANY KEY

MEL: Medical records? AIDS?
BRUCE: There are men and women with the virus who are working as prostitutes, and there is a body of opinion that believes for the greater good of our community these people should be controlled. They are passing on a killer virus.
MEL: Will AIDS carriers become Non-Persons?
BRUCE: There are more complex divisions in our society that secretly affect your computerised status. If you are male or female, black or white. I don't know about AIDS in the future, but at present integrated databases do have useful functions, to control terrorists for example.
MEL: But these databases are open to abuse. Dirty tricks campaigns against anyone from a Cabinet Minister to a rebellious bishop?
BRUCE: The Data Protection Act gives people access to their own records, and I think that the benefits of these computerised records outweigh the abuses.

Hi there GAMES MACHINISTS. I'm . . .

TIM BEST
of System Three,

currently married to Mel Croucher.
MEL: At the end of this year all your personal records are going to get sucked into the Government Big Brother computer. Is that alright with you?
TIM: Yup!
MEL: Why?
TIM: The medical side of it is certainly a damn good idea. GEC are currently bidding for the business of 63 million cartridges each holding 128K of data, to be manufactured in Scotland under licence from a Japanese design. GEC will get it of course, because they're charging twice the price of the Japanese competitors! That's the infinite wisdom of the Department of Trade and Industry for you. I'm not to keen on the, um, 'intimate' details it will carry.
MEL: AIDS.
TIM: AIDS can be cured as quickly as it arose. Do we have to give it this incredible prestige? Education is the cure for AIDS.
MEL: 'Non-Persons'?
TIM: The Non-Person Class already exists. You just gain access to the British Debts Services database, and their information on individuals is extensive to say the least. The Data Protection Act is a farce. With the right equipment it's very very simple to get a credit rating on anyone. You can find out who they're living with, if they are unmarried, how many people live in any particular housing unit. In theory you can find out if they've been turned down for any insurance policy, failed applications for mortgages, jobs they've applied for, average weight, number of spots on their bum, you name it.
MEL: At the next general election all major parties are going to be using computerised direct mail, saying different things to different people, targetting their bullshit using these databases.
TIM: That's true. Already many local councils get big money by issuing edited versions of censuses to mail order companies, research bureaux,

"The Data Protection Act is a farce . . . it's very very simple to get a credit rating on anyone."
TIM BEST

WESTMINSTER, JANUARY 1988. THE HOME OFFICE MINISTER OF STATE HAS CONFIRMED THAT IT WISHES TO EVALUATE ELECTRONIC HOUSE ARREST FOR 17- TO 20-YEAR-OLDS, UNDER WHICH NON-VIOLENT OFFENDERS WILL BE ELECTRONICALLY 'TAGGED' TO ALLOW A CENTRAL COMPUTER TO MONITOR THEIR MOVEMENTS. THE SYSTEM IS ALREADY IN USE IN THE UNITED STATES.

"Readers of the magazine, who face the world of tomorrow must be vigilant, otherwise you will live in a world where the rights I fought for are lost."
T DAN SMITH

where people are classified into A1, B1, you know all about that. But from 'Class D' downwards, you're already a Non-Person. Big business doesn't give a damn about these people. Yes, political manipulation is a big problem, and it's about to become a gigantic problem.
MEL: Give me an example of political manipulation.
TIM: If you wanted to assess the viability of bringing back conscription, bunging individuals into the armed forces for two years, you could quite simply do a stat of all the 'Ds' and 'Es' currently drawing unemployment benefit between the ages of 18 and 22, you'd have that list through within four or five hours. Squirt it through to your recruitment office and there you go. In fact, is political manipulation already happening? I ask that to you.
MEL: In 1989, there's a government proposal for the electronic tagging of non-violent young offenders, as an alternative to prison. A sort of house arrest, so that the police can keep tabs on them. What's your reaction to that?
TIM: My reaction? I am against! Because it's a natural first step to permanent tagging; say, a tattoo on your body for long-term serious offenders who are let out on probation. So I can't agree with it. Electronic tagging is the first rung on a very dangerous ladder, a fascist ladder. As for self-policing, it just doesn't work.
MEL: And doesn't work for anyone without access to a telephone, or an address. Yet this legislation may well go through. What's going to happen?
TIM: Well, what I believe will happen is a new class structure, the Technos and the Non-Technos. The technologically aware and those wealthy enough to buy such knowledge, and the rest! Fritz Lang's silent film *Metropolis* is the ideal example of how that society works.
MEL: What are the dangers of manipulation, disinformation, using these spy computers?
TIM: It's so easy to manipulate databases. Especially round election time! Any party in power would automatically have access. Careful Mel, Big Sister Is Watching You!

"No man is above the law and no man is below it; nor do we ask any man's permission when we demand he obey it!"
President Theodore Roosevelt, 1904
"Every step you make, every breath you take, I'll be watching you."
The Police

T DAN SMITH

was one of the most powerful men in Britain. He was 'City Boss' of Newcastle, he caused the Home Secretary's resignation, was busted by MI5 and went to jail for six years in 1974 on corruption charges, where he shared a cell with 'Dirty Den'. Today Dan is aged 73, is an unrepentant Marxist, and was happy to meet me for a GAMES MACHINE interview.
MEL: What was Dirty Den like in prison?
DAN: Nice man.
MEL: Are you a crook? Every newspaper in the land said you were.
DAN: I was offered a seat in the House of Lords and the Chairmanships of two Nationalised Industries, and I turned them down. It's all on record. If I'd wanted to be a crook why the hell didn't I go for that?!
MEL: How did you discover that you were being bugged, and under surveillance?
DAN: I learned all the sordid details when I was sent to prison. Many of the guys who are in charge of surveillance are known to me, like the Detective Superintendent who arrested the Labour Cabinet Minister John Stonehouse, I learned all about him from his colleagues in jail! But even telephone tapping is getting obsolete, technology has moved on.
MEL: Give me an example of Big Brother working the other way, protecting those in power.
DAN: Last week, the actress Maria Aitken, who I know very well, she sends eight letters filled with cocaine, confesses, and is found not guilty. Her brother is a Tory MP. It's like the Guinness scandal, one law for the Guinness family and another one for Dan Smith!
MEL: Why did you agree to do this interview?
DAN: I came here from Newcastle for two reasons; to keep myself up to date and to try and contribute something for your young readers from my experience as a victim of Big Brother. I was in the campaign to give 18-year-olds the vote, and right now I'm working on a television series about the future of democracy. I've got some figures for you. Where you live, Mel, in the south of England, 3,338,944 people voted for Mrs Thatcher in the last election, and 2,693,861 voted against her. Yet in the South she has 107 Tory MPs, and only one opposition MP. One! Nationally, 17,985,000 voted against her and only 13,725,000 for her, yet she's in power for the foreseeable future with a majority of over four million against her. Democracy!
MEL: But what do you suggest can be done for democracy?
DAN: Big Brother must be smashed. Parliament must reflect the people and not be for a minority of 13 million against a majority of 17 million to divide and control the people. Technology can be harnessed. You can start with ten people; Lenin did, Thatcher started with less! Readers of the magazine, who face the world of tomorrow must be vigilant, otherwise you will live in a world where the rights I fought for, and my parents fought for, are lost. They are being taken away, one by one, day by day.
MEL: Did you learn about Big Brother's corruption through your own business dealings?
DAN: I was the director of a television company and my PR companies handled millions and millions of pounds, but I learned more about abuses inside prison than I ever learned outside. I was tried four times for my 'crimes', but it's people like you who will bear the brunt of the rot that's set into our Big Brother state. Maybe you won't even get a trial. I know first hand that six out of ten people in prison are there because they're either gamblers or drinkers or drug addicts. You might as well jail people for having cancer! I've seen people commit suicide in prison, screaming as they died, and it happens every day in British jails, in all our names, in your name. You permit that.

MEL: A final word about technology, Dan.
DAN: Be aware of modern technology, and the purposes it is used for. But more importantly be aware of the gang of guys who run this country, the Privy Council. They are a power above Parliament. They can discredit a Minister like Tony Benn or a Prime Minister like Harold Wilson, and nobody minds. I have seen it, and I have served time for it.
MEL: Are you a millionaire?
DAN: When my will is published I shall laugh all the way to Hell! That's the truth.

NIKKI PENNY
Loriciels

MEL: Why do we need passports?
NIKKI: Everybody has to have some form of identification. It would get bloody confusing otherwise.
MEL: Who would get confused?
NIKKI: It all started when we began to give ourselves names. Then we found national identities. It seems quite natural to me that credit card type of identification, containing all our details is not a lot different to paper files. It's more convenient.
MEL: But convenient for who?
NIKKI: For people who want to know if you're credit worthy, in all senses.
MEL: So we are nothing more than financial units.
NIKKI: That's the way our society tends to view us. We are already on file, anything from committing a driving offence onwards. And medical records too; I mean, if you are a diabetic and collapsed in the street, it increases your chances of getting the right help if your ID card can be scanned immediately. If there is an emergency, the ambulance crew needs as much medical background information as possible. Especially in the light of AIDS.
MEL: What about people who haven't got one of these cards?
NIKKI: We've all got records kept on the course of our lives. Educational, medical and criminal. If someone has a record for interfering with young children it stands to reason that you don't appoint them as a warden in a children's home.
MEL: But supposing that record is wrong?
NIKKI: Obviously there have to be strict controls on how data is acquired and what happens to it.
MEL: Who should control it? Us?
NIKKI: I don't think we could, and I don't think we should. There should be a central organisation.
MEL: And that's exactly what is proposed. A central databank. Big Brother.
MEL: Nikki Penny's medical records, her criminal record, her educational profile, her passport records for where and when she's travelled, who she lives with, and what she's worth and who she's in debt to . . . are you happy that I've got access to that? Let's say I want to hack into the system, change a few facts and figures. How do you stop me?
NIKKI: I'm not a technical genius. There must be ways. Access should only be given to authorised people. Speaking as an upright citizen (except for last night!) I don't give a toss who sees my records. Not everyone feels like that. On the one hand everyone's crying out for freedom of information, but freedom for who? Individuals should have the right to see their own files, but I don't see why I should be able to comb through your murky past Mr. Croucher, or my neighbour's or my milkman's. Things like credit blacklists should not be available to unauthorised people.

"Things like credit blacklists should not be available to unauthorised people." NIKKI PENNY

WESTMINSTER, FEBRUARY 1988. THE TREASURY MINISTER HAS INVITED BRITISH TELECOM IN ASSOCIATION WITH ACSC, CABLE AND WIRELESS AND RACAL/SCION TO BID FOR THE PRIVATISED 'GOVERNMENT DATA NETWORK', WHICH WILL SPY ON CRIMINAL RECORDS, VAT RETURNS, NATIONAL INSURANCE, WELFARE BENEFITS AND PASSPORT CONTROL.

SWITZERLAND, MARCH 1988. THE GOVERNMENT IS INTRODUCING A CELLNET WHICH ENABLES THE SWISS SECRET POLICE TO TAP 20,000 PHONES AT THE SAME TIME. THE SYSTEMS WHICH MONITOR BOTH INCOMING AND OUTGOING CALLS ARE PRODUCED BY TWO BRITISH FIRMS, RACAL AND PLESSEY. THE MOST CELEBRATED TAPS THUS FAR HAVE BEEN ON COMPANIES CONTROLLED BY US GENERAL RICHARD SECORD AND COLONEL OLIVER NORTH.

MEL: But they are available! You can buy lists of credit ratings from any number of sources. You can find out a hell of a lot more besides. I know how to do it because I am relatively powerful and I know how to work the system. But it just doesn't work the other way round. You seem to be saying that personal information should only be available to those who 'know best'.
NIKKI: No, it should be available to those who genuinely need that information, for purposes that will safeguard others.
MEL: The Secret Police, MI6?
NIKKI: If necessary.
MEL: Are you a member of a political party, a trade unionist, a peace group, the Brownies?
NIKKI: No, used to be, no, yes but I grew out of the uniform.
MEL: You used to work with ex-offenders, didn't you? What sort of crimes had they committed?
NIKKI: Any sort of crime. Parking on double yellow lines, ha ha. Lots of youth custody cases.
MEL: How do you feel about the prospect next year of electronically tagging young offenders? Computerised curfew?
NIKKI: As opposed to being in custody 24 hours a day, a curfew might seem a hell of a lot more attractive.
MEL: Isn't it the beginning of a slippery slope? The tagging of foreign nationals, who are at present kept on that bloody boat in the Thames Estuary, so called 'aliens awaiting processing'?
NIKKI: Again, tagging would be a preferable alternative to me. Even though it sounds like *1984*.

KEN ROSS . . .

runs a mail-order 'Electronic Security Service' from a flat in Hampstead Road, London NW1. I met him in the lounge bar of The Barley Mow, Portsmouth.
MEL: Hello Ken, you're getting fat.
KEN: Hello Mel, you're getting bald.
MEL: Since the days when we recorded together, you've become something of an expert on counter-surveillance. You're a bugger.
KEN: The expert! The best bugger in the business! Who do you want bugged?
MEL: Nobody right now, but supposing I had to wear an electronic bracelet, so that the police could keep track of me via a telephone modem, could you get round that?
KEN: Easy. The tags I've seen are dead easy to reproduce, but your problem wouldn't be in logging on at set times, your big problem would be if the Boys checked up on you after you've logged on. They could simply phone back immediately and run your words through a voice print analyser. Of course, I can change anyone's voice electronically, and we can emulate voices well enough to confuse a voice-print machine via a telephone line, but that costs big money.
MEL: But it can be done.
KEN: Anything can be done to f*** up the security system if you've got the dosh. I can tell you if your phone's being tapped, I can sell you an antibugging system for your phone, your house, your car. I can also sell you a little black box to bug anyone you want.
MEL: And you just happen to have one with you.
KEN: You know I have, we set it up in the Public Bar five minutes ago. Range 200 metres, and we are picking up the conversation loud and clear on this bog-standard Sony FM tranny.
MEL: Every boring word. How much?
KEN: £14.95 including postage and packing, mail order! I also do bugs in cigarette lighters, brief cases that are really video cameras, books that are audio-visual transmitters, electronic dogs that bark if you as much as fart in the dark, you name it.
MEL: All legal?
KEN: All legal. Money back guarantee.
MEL: Alright, now just supposing, for the sake of example, that I've got a credit card-sized ID, which holds things like my Social Security Number, my credit rating, my driving record and my medical history. Could you change those details for me?
KEN: Are you kidding? You are kidding! A credit card is one of the simplest pieces of kit around. It's just a magnetic strip that can be read by a primitive scanner in a cash dispenser or a petrol pump. It's a doddle, you can reproduce the plastic, the dyes and the hologram with absolutely no problems at all.
MEL: No, I'm not asking about forgery, I want to know if you can reprogram the data held on the magnetic strip.
KEN: Any hacker can do that, given the basic read-write kit. But you're in the shit if those details don't tally with the ones held on the mainframe. It would work for police spot checks though. Computer fraud is already a boom industry, and when the Powers That Be go totally computerised there will be a whole new field of crime. Not so much that 'knowledge is power', more like 'access to data is money!' Let me buy you a drink, there's a space in the bar next door, I hear. Do you want me to tell you how to fiddle your Phone bill . . . ?

"The picture had fallen to the floor, uncovering the telescreen behind it. 'Now they can see us.' 'Now we can see you,' said the iron voice. 'Stand out in the middle of the room. Stand back to back. Clasp your hands behind your heads. Do not touch one another.' . . . It occurred to Winston that for the first time in his life he was looking at a member of the Thought Police.'

If you have been bugged, or if you think that the likes of T Dan Smith are paranoid, write to THE GAMES MACHINE with your thoughts. Next month I will be examining members of a very different nature to Mr Orwell's Thought Police. Members searching for sex, for love, for friendship, for bomb-making equipment, via those naughty little computerised Bulletin Boards. Thank you for your attention. I'll be watching you.

IT'S MSXELLENT!

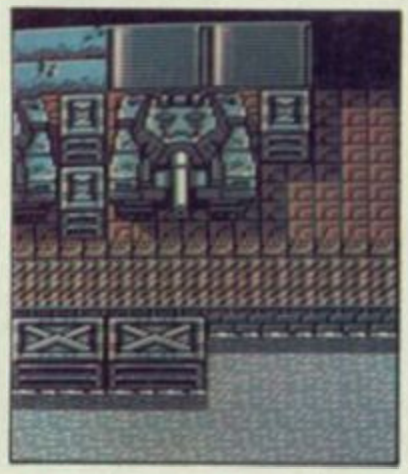
A brand new Philips MSX-II computer and Salamander games up for grabs!
Double the fun from NIGHTDARE and KONAMI

Honestly, we're just too generous . . . after the stunning series of Amiga competitions we now give all GAMES MACHINISTS the chance to win the very latest in European technology in the shape of a Philips MSX-II computer. If you haven't already played with an MSX-II you don't know what you've been missing and we seriously advise you to go out and find one now. Then again, it may be better to enter this competition and try to win one for yourself.

We have the Philips NMS 8220 MSX-II (the manufacturers are keener on numbers than Amstrad!) as a competition prize, on offer from **Nightdare Computers**. It's totally compatible with all standard MSX software and, of course, with all the new MSX-II software which is beginning to pour in. This particular MSX-II model is mainly aimed at creative leisure users; in other words it's good at running games. Graphic capabilities are high, with up to 512 x 425 pixels on the screen running 256 colours at once and sound (eight octaves, 3-tone chord) that would make you think you're playing the arcade game.

The machine comes with two onboard programs as standard, *MSX-BASIC* and *MSX-Designer* for creating your own graphics. Additional software can be loaded either via the two cartridge ports or a cassette player. The whole package contains the computer, TV cable, main cable, and manuals for complete operational control. The winner also receives a cartridge copy of ***Salamander***, the latest coin-op conversion from Konami – and there are 20 copies of the game (on MSX format) for runners up.

Nightdare, the company which is supplying the Philips MSX-II on offer, will keep the winner, and anyone else who is interested in MSX hardware and software, up to date with a complete mail order service – if you would like to know more about them, drop a line to: **Nightdare, *11(b) Walnut Road, Chelston, Devon TQ2 6HP***.



Also in the business of keeping people up to date with MSX news is the Konami Software Club, though you don't have to be

Name the four Konami games above, all of which have been reviewed in THE GAMES MACHINE, and have a chance of winning a brand new Philips MSX-II machine!

into MSX to join up, because the club covers everything in which Konami is involved – and that includes the arcade machines, computer software, conversions and, soon, news on Konami games to appear on the Nintendo console. It costs £3.95 (mainland UK, outside UK drop them a line) to join up and for that members get a monthly newsletter and a card giving access to all kinds of special offers, competitions and a Konami helpline providing information. The club is open to anyone and currently has a membership of 2,000. Find out about them by writing to **Konami Software Club, *Bank Buildings, 17 Bank Street, Newton Abbot, Devon TQ12 2JL***.

HOW TO WIN

Or, how to get your greedy mits on the Philips MSX-II prize. Quite simple really: on this page somewhere are four screenshots from Konami games we've reviewed over the past few months – name all four and jot your answer down on a postcard or the back of a sealed envelope, not forgetting your name and address, and send it off to: **MSX-II COMPETITION, THE GAMES MACHINE, *PO Box 10, Ludlow, Shropshire SY8 1DB***. Competition rules are described in the masthead and make sure your entry arrives here by June 16.

Graphic capabilities are high, with up to 512 x 425 pixels on the screen running 256 colours . . .

. . . the club covers everything Konami – arcade machines, computer software, conversions and Konami games on the Nintendo.

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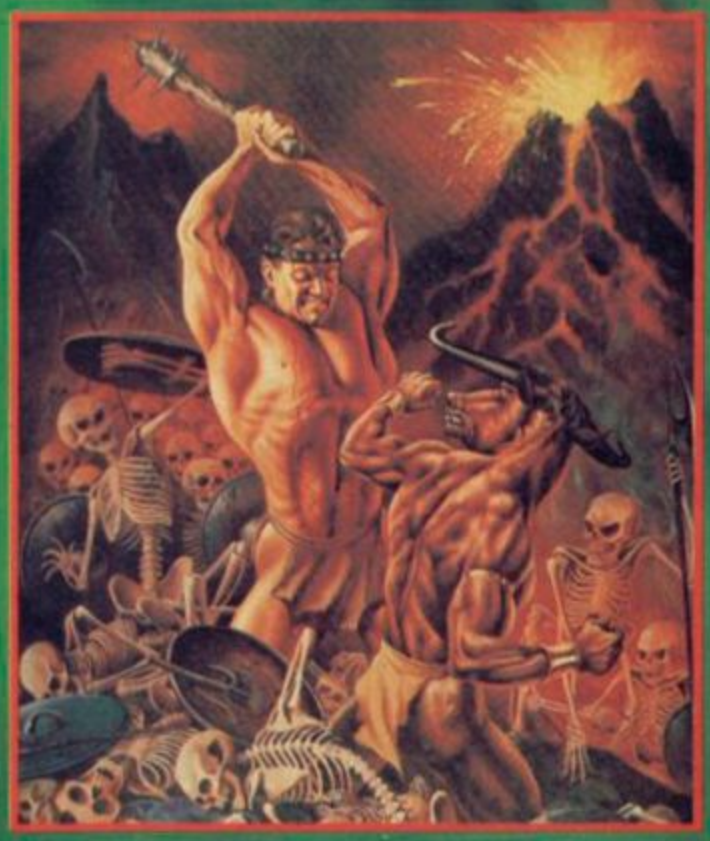

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BLOOD BROTHERS

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DEATH TO THE SCORPIANS"

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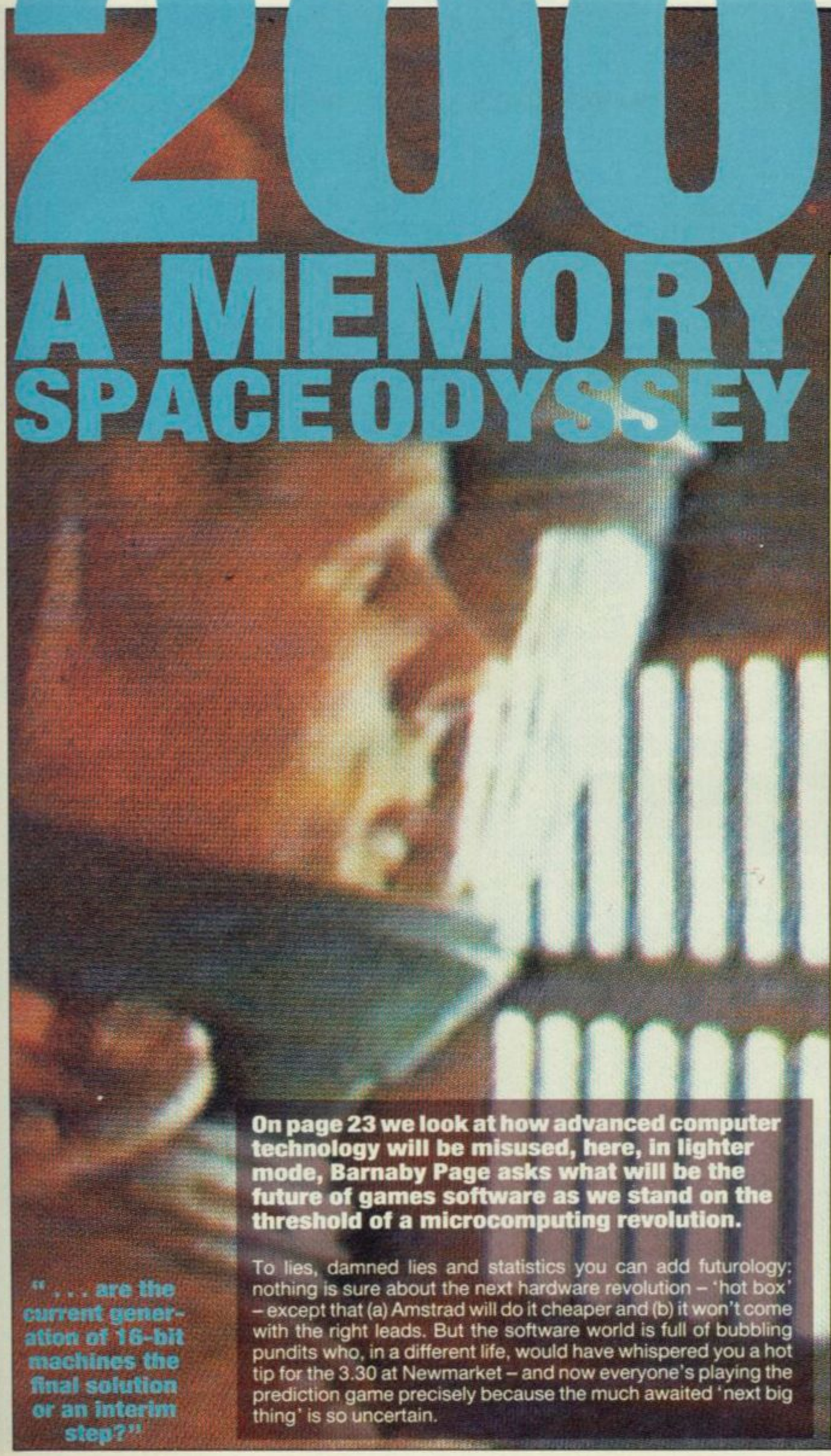
2001 A MEMORY SPACE ODYSSEY



On page 23 we look at how advanced computer technology will be misused, here, in lighter mode, Barnaby Page asks what will be the future of games software as we stand on the threshold of a microcomputing revolution.

To lies, damned lies and statistics you can add futurology: nothing is sure about the next hardware revolution – 'hot box' – except that (a) Amstrad will do it cheaper and (b) it won't come with the right leads. But the software world is full of bubbling pundits who, in a different life, would have whispered you a hot tip for the 3.30 at Newmarket – and now everyone's playing the prediction game precisely because the much awaited 'next big thing' is so uncertain.

"... are the current generation of 16-bit machines the final solution or an interim step?"

WE HAVE THE TECHNOLOGY

... or at least we have the names for it. When the going gets slow, researchers turn to buzzwords, and they all point to two things: faster and smarter machines, and bigger games.

AI Artificial intelligence
Nothing of the kind – an AI program simply has some of that unconscious analysis we call 'intelligence' built in. It can recognise patterns in the information it's given and the experience it's had, and behave accordingly. Entertainment applications: perhaps games that 'learn' how you play and respond with more of the problems you're worst at solving. At last there could be a real battle of double-bluff with a computer-controlled opponent.

CD-RAM compact-disc random-access memory
Information could be written on compact discs (CDs) – used for music – rather than floppy disk or tape. But because the data is physically written on the compact disc (CD) by laser rather than stored as erasable magnetic charge, CD-RAM seemed implausible. Not so! Sony hopes to release its first CD-RAM disc shortly – a 5.25" disc with 650 megabytes storage, which can be written and erased up to a million times by a laser beam only 1 micron wide – we're talking *thin*! Entertainment applications: very big, very fast interaction games!

CD-ROM compact-disc read-only memory
This technology, being developed by Philips and Sony, puts huge volumes of data – as much as 520 megabytes – on a single CD. Entertainment applications: very big games!

Expert systems
An expert system (see also UN-STAC-ING THE ODDS, page 76) is an application of AI: using plenty of specialised data, it can carry out tasks which require judgment, such as weather-forecasting and medical diagnosis. Entertainment applications: perhaps chess programs which analyse stored data on historic champions' games and look there for solutions to meet their current problems?

Fourth-generation language, 4GLs
see High-level languages

Futurology
A trivial pursuit

Gallium arsenide
Chemical symbol: GaAs. The semiconducting material tipped to replace silicon in your chips, because it's faster. Entertainment applications: speed.

High-level languages
Using a high-level language like C or Occam, a programmer simply describes what he wants to do – not exactly how the machine should do it. So high-level languages are easier to use, and more 'portable' – their programs need little conversion from one format to another, unlike machine code. Entertainment drawback: high-level languages are attractive to producers because they cut conversion costs, but don't get as much out of the computer as machine-specific machine code.

Hot box
Technospeak for 'the next big thing'. Real computer people never say 'computer' – it's always 'machine', 'box', or, if you have a particularly expensive suit, 'system'.

Integrated leisure environment
That nirvana where the joystick lies down with the Walkman and the CD-ROM with the comic. Entertainment applications: if you liked the single, you can play the game. Real attraction for software industry: loadsa money.

Neural network
A computer modelled on the human brian, with processors in place of neurons, a neural network would scoff at software and simply learn from experience. Entertainment applications: a computer opponent you could really grow to dislike.

The trends are contradictory. On the one hand, many predict that games will be integrated into today's saturation marketing: the book, the film, the comic, the toy, the ST game of a concept. Some also contend that an older market will want word processing, graphics-manipulation packages and all the fun of the spreadsheet on their computers, so games will be just part of the pixelated picture – as some ST bundled software, the growing market for PC and Apple Macintosh games, and the very existence of Amiga DOS seem to attest.

But then what do you make of the dedicated games machine's return? Will these low-priced consoles snatch the games market from 'real' computers? Or will they simply replace the 8-bit machines at the bottom end of the market, leaving PC and Mac machines to take care of those who want something more than the extended Mario family?

Says programmer David Aubrey-Jones (Spectrum *Mercenary*, many other conversions, Speedlock): '16-bit machines as we know them will take over the market for full-price games completely, and then we'll be looking at versions of those which are 32-bit.'

But Code Masters executive Bruce Everiss wonders: 'The problem is, are the current generation of 16-bit machines the final solution or an interim step?' (The latter, he feels, citing the comparatively slow speeds of the ST and Amiga beside the Commodore 64 – and the barrier which business-like Amiga DOS puts in the way of games programmers.)

CAN WE HAVE IT NOW?

These contradictions and the industry's confusion arise because (to coin a cliché) anything is possible now. To coin another, we have the technology – it's deciding which technology to use, and making it affordable, that poses the problems. Technologically, there's no reason why you shouldn't climb into the car, say 'take me to 10 Downing Street', and sit back and doze the journey away. Voice recognition, electronic route guidance, artificial intelligence to deal with traffic – they're all possible, but they don't happen overnight.

Perhaps it's this sense of technical feasibility just out of reach that's prompted the story of the man and his watch, now doing the rounds.

A man is struggling along a busy midday street with two obviously heavy suitcases. Every so often he stops to mop his brow; and it's while he rests this way that a stranger walks up to him.

'Excuse me,' says the stranger, 'but could you tell me the correct time, please?'

Putting away his handkerchief, the man consults his wristwatch and replies: 'It's 3.10 here, 10.10 in New York, time to go home in Tokyo, Dukakis is up 12% on Jackson, British Gas shares are down 3½p, rain is expected around 7pm, and – this has just come in – £11 million has been stolen in a bank hold-up in Coventry.'

'Whew!' says the stranger. 'That's some watch!'

'Yeah,' says the man with the watch, 'but' – he gestures at his 100-pound suitcases – 'these batteries are killing me.'

Well, computers don't run on batteries – except the so-called laptops (and I'll personally give £10 to the first GAMES MACHINE reader who produces unposed photographic evidence of a laptop actually being used on someone's lap) – but the cornucopia of parallel processors, RISC chips, superconductors, and CD-ROM units (see box WE HAVE THE TECHNOLOGY . . .) is useless without software.

TECHNOLOGY ISN'T ENTERTAINMENT

As Andrew Hewson, the man who put eponymity into corporate labels, explains, new technologies are viable only 'provided they can get a ready supply of entertainment material'.

'I don't think that lesson's been learned by the hardware manufacturers yet,' he continues. 'They see themselves simply pushing back technology. Amstrad's come closest to it, creating a market rather than just technically outdoing the competitors.'

And ultimately 'it's cost. Whatever hardware you create you have to create a base of cheap software to slot into it. You don't mind paying for the hardware if the software is cheap.'

For all that, says Hewson, the game of the future will likely be bigger than today's: 'It's going to be much more like creating a film than a computer game. It's going to be much more complex.'

And Aubrey-Jones sees that happening already. Today's games do tend to be more complex than games of a couple of years ago, when it was quite common to see a game that had just one screen.'

He expects 16-bit and 32-bit machines will bring 'games which have a lot more realism. For instance, you could be flying over a planet's surface *(shades of* Mercenary*?)* and see the whole planet just as though you were really there and have action sequences. Today you can tell immediately, 'oh, it's just a computer'.

The massive memory of CD-ROM – a system where software is stored on compact discs – will also give the programmer more potential, says Aubrey-Jones.

'It would really make possible filled true 3-D programs; at the moment they're a bit slow for real action games. The next generation will make these fast and acceptable.'

But for software houses to start exploiting a CD's 550 megabytes (about 550,000,000K) of memory, CD-ROM must be widespread. Aubrey-Jones cites the ST situation, where software uses 512K at most – because that's all most STs have, though a 1040K model is quite common.

Everiss predicts 'more research, bigger and better products that actually have more contents'.

'With room for more memory,' he says, 'you're going to see more straight simulations and more sophisticated arcade adventures' with detailed 'subplots' as well as dressed-up graphics and sound – in other words, the kind of games that North America's older, PC-and-Mac-based players already enjoy.

INTEGRATED LEISURE

Like many software producers, Everiss sees games becoming just part of an all-encompassing entertainment package: 'We expect that ultimately you are going to have an integrated leisure environment – that's an inevitability, merely a matter of time.'

Making the marketing speak more material, Hewson explains: 'I think the idea of a software house is a bit old-fashioned. There will be a sea change in who licenses to whom.'

At the moment film and TV companies sell their successes to software houses – but, says Hewson, 'in the really long ferm I see it going the other way round.'

He resumes the comparison of games with films: 'In the film industry, it used to be the film of the book, these days it's a book of the film, because the technology of films has improved immensely compared with books which have hardly changed in, say, 75 years.'

Gung-ho, Hewson asserts: 'We've got technology on our side. It will be our technology that improves immensely faster than other technology.'

But high technology doesn't necessarily mean high sales, as the experience of the toys and games market shows. It's a similar world to micro gaming, with a few major players, lots of smaller companies, tie-ins vying with 'original concepts', pocket-money games set against expensive adult sets like *Trivial Pursuit* at almost £25.

THE END OF BUDGET?

And, says Gerry Masters of the National Association Of Toy Retailers, 'the high-tech toys appear to come and go too quickly to recover costs and enthusiasm'. There's been a return to traditional values of playability, he says, and the only gimmicky toys to have stood fast in the changing wind are TV tie-ins like *Masters Of The Universe* and *My Little Pony*.

Meanwhile, boardgame manufacturers have discovered the adult market with a series of *Trivial Pursuit* clones – just as complex adventures and simulations are starting to unearth an adult market for computer entertainment.

'The whole games market is bubbling like mad,' asserts Masters. 'These boardgames have taken the place of things like party games and

charades and TV.'

Drawing more adults to the joystick – or will it be an Apple mouse? – this way will take more than a *Super Professional Simulator Plus*, and Code Masters' Everiss agrees: 'Publishing is going to be a lot more complicated and sophisticated than it is now, and we are girding our loins for that.'

The vision of an Everiss, two Olivers and a trio of Darlings girding their loins might seem like a choreographer's nightmare, but what it comes down to is that the game of tomorrow will be costly as well as complex – and that could signal the end for budget.

'Surviving without advertising, which is what we do (to keep prices so low), isn't a viable long-term marketing option,' admits Everiss. 'As the use of computers in the home environment becomes more widespread, we are going to have to broaden our marketing and that will be reflected in price.'

Still, Gallup analysts expect 75% of all games sold to be budgets by sometime this autumn, and Hewson – who produces the £2.99 Rack-It games as well as full-price titles – argues that budget can persist with rereleases of older full-price games. And he disinters his cinema comparison yet again to draw a parallel between 'cheap and cheerful software' and all those identical Sixties Hammer horror films – thrown together, predictable, fun once.

'Budget labels can have that slot happily,' he laughs Christopher Lee-like. 'You get what you pay for, sunshine.'

The high development costs of future games will decimate the ranks of software houses, Hewson believes. Gone will be the two-men-and-a-compiler outfits; they'll need the reputation of being able to deliver, so they can go to a funding agency and say 'we're going to do the biggest computer game ever'.

Ocean, US Gold, Mirrorsoft, Telecomsoft – these names will dominate, while other firms sell themselves on the strength of tie-ins. Companies like Domark, for example, haven't gone for a strong name,' says Hewson. 'They go for a strong product like *Trivial Pursuit*. You wouldn't know looking at the package that it's a Domark game.'

TAKING THE RISC

And what of the hardware? The only certainty is that nothing interesting can happen yet, and the brave new world of voice input, fast clean optical switches replacing electrical current, holographic TV (widely anticipated in the US toy world) and micro supercomputers measuring their speed in teraFLOPS (trillion floating-point operations per second) will still be the province of articles like this in a year's – or five years' – time.

Probably, observers agree, parallel processing (see box) will be the next big step – along with 32-bit machines such as Acorn's Archimedes and its RISC (Reduced Instruction Set Computing) technology.

'At the right price the Archimedes could take off,' muses Aubrey-Jones. 'The speed is there, which is really essential for games.' But Acorn doesn't have the marketing savvy to make it work, many argue, and there is still controversy over the efficiency of RISC architectures, which process instructions faster than ordinary machines but may need more instructions per task.

There's argument over languages, too; software producers are fond of high-level languages (see box WE HAVE THE TECHNOLOGY) like C because they make conversion from one format to another simpler and cheaper. But Aubrey-Jones speaks for the pure programmers when he retorts that 'quality games will always be in machine code because that stretches the machine to its full potential'. Machine code and high-level languages could be mixed, he admits.

For computing's next generation, the technological lead may come not from popularising entrepreneurs like Sir Clive Sinclair but from the heights of multithousand-pound business machines where already Apple is bringing artificial intelligence to the micro with its micro Explorer and Commodore is adding Transputer chips to the Amiga 2000 for parallel processing.

But the brave new world will probably be depressingly timid, governed not by teraFLOPS but the terror of flops. And perhaps Atari founder Nolan Bushnell knew it all too well when he said: 'There will always be toys that are just a hunk of plastic but with proper marketing will sell.'

It looks like the Amstrad Spectrum could be around a while yet.

PARALLEL PROCESSING

Our buffer runneth over with all the good things that new computing technology promises – but perhaps the electric dreams come closest to reality with parallel processing. Parallel processing is already set to revolutionise the PC office and it could help games programmers do more things quicker than ever before; but it's a simple principle. In fact, you're parallel-processing all the time.

That is, while one battalion of neurons gets on with interpreting the light reflected from this ink and making it into letters and words and meanings and clichés, other parts of the brain are steering your eyes as you read across the page, reminding your lungs to breathe, feeling the temperature, perhaps getting hungry – all at the same time.

But though an apparently sane editor recently urged me to 'develop a relationship with the Mac', computers aren't people – partly because they take everything literally, partly because they don't really learn from experience, and partly because they are single-minded, following what's called von Neumann architecture: essentially that means they (and therefore programmers) must break all activities down into series of consecutive tasks. (People who do this we call 'mechanical, like a robot' . . .)

Parallel processing simply allows two or more processors to run in tandem, speeding everything up – and games on parallel-processing machines could be much more lifelike. In adventures, for instance, things could happen even while you typed your command . . . just as circumstances suddenly screw up the best-laid plans in real life.

Pocket-money parallel processing is still a way off: Atari's Abaq machine, launched in March, costs between £3,000 and £5,000 – with 13 top-of-the-range Inmos T800 (Transputer) chips side by side, it's intended for science and education.

But Commodore's development of a prototype Amiga 2000 with 17 T800s signals that micro manufacturers are working hard at making their machines work harder.

In the meantime, there's a sneaky way around the problem. Though multitasking doesn't necessarily speed things up – it doesn't increase processing horsepower – it means a computer can pretend to do two things at the same time by switching from one task to another very rapidly.

A comparison: if you say 'I'll make supper' and disappear into the kitchen, as far as the lazy crowd around the TV is concerned you're running the carrot-chopping, burner-lighting, gravy-mixing, plate-warming programs simultaneously – all they see is the finished meal. But because you don't have eight pairs of hands (parallel processors) you have to nip back and forth from stove to side to sink (multitask).

PC users have welcomed the multitasking abilities of Microsoft's OS/2 operating system, the follow-on to MS-DOS (it runs on PCs and PS/2s with 80286 and 80386 processors) – besides being a great step for mankind it means you don't have to twiddle your thumbs while a printer occupies all the computer's attention.

The next step to making computers act more like people – and games more interactive – are neural networks and expert systems (see box WE HAVE THE TECHNOLOGY). But such complex activities demand parallel processing – which is why Atari and Commodore could be the first with the next big thing.

Optical switches
Using optics, a computer would transmit information using light rather than electricity. Entertainment applications: speed.

Parallel processing
see box PARALLEL PROCESSING

Ray tracing
Ray-tracing graphics generate an ultrarealistic picture by tracking where every ray of light in the scene would go and producing shadows, reflections, and so on. But they demand huge processing power to run at a useful speed. Entertainment applications: just like being there . . .

RISC reduced instructions set computing
RISC-based machines use shorter instructions than CISC (complex instruction set computing) systems, which some say speeds them up – but others argue they therefore have to use more instructions, cancelling out the benefit.

Supercomputer
Sounds good – a very fast number-cruncher getting through tens of millions of operations per second. The biggest supercomputers are developed in the US by Cray Research. Some 300 now exist – more than double the population three years ago. Entertainment applications: revival of outdoor sports. Despite what you can get on a desktop these days, a supercomputer would probably crowd you out of the room. Seriously: big, fast games.

Superconductivity
Superconductors are materials – mostly ceramics – which have no resistance and thus don't weaken electrical current which flows through them unlike semiconductors, today's chip materials. Entertainment applications: faster games. Slight problem: most superconductors require temperatures close to absolute zero.

Transputer
A 32-bit parallel-processing chip developed by British firm Inmos and already in use by Atari and Commodore (see main story) as well as in a supercomputer by US-based Floating Point Systems. Entertainment applications: speed.

WSI wafer-scale integration
The latest project of Sinclair Research, WSI allows complete computers on single chips. Advantages: compactness, less wire. Entertainment applications: speed.

NOW PLAYING AT A STORE NEAR YOU.

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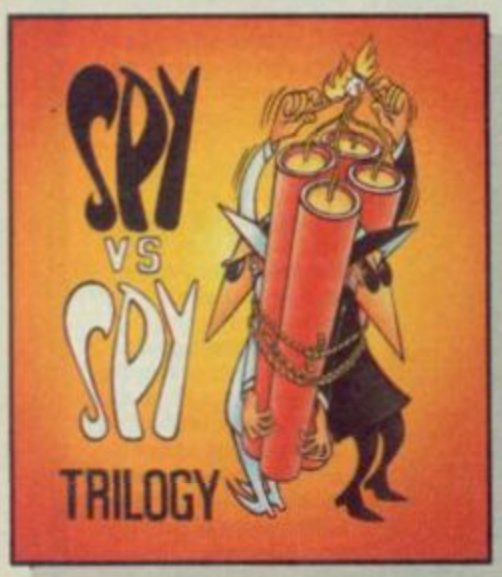

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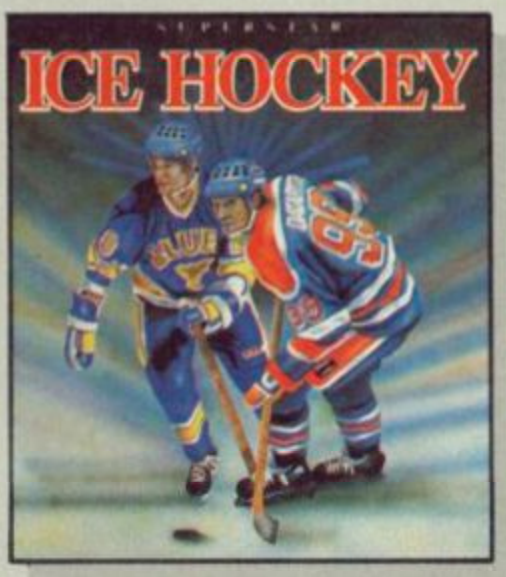

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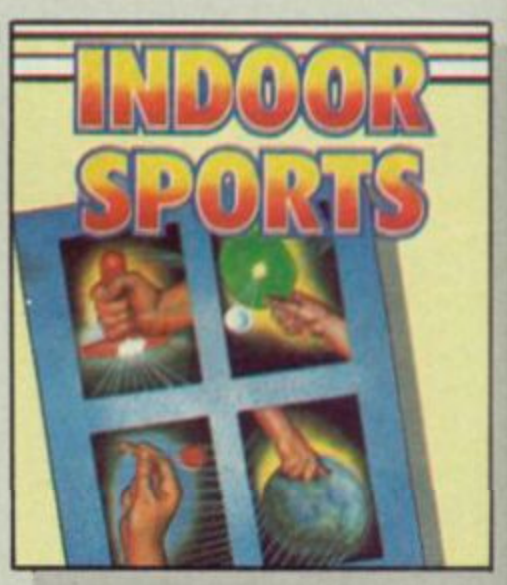

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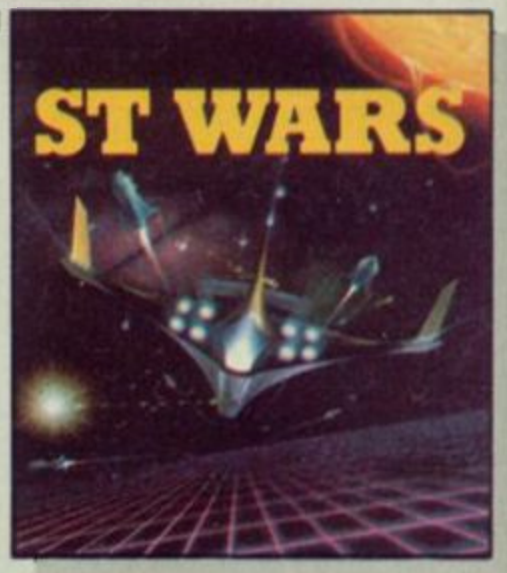

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OMISSION!
THE GAMES MACHINE omitted to report last issue, that on the Commodore 64/128 diskette version of *Impossible Mission II* there is a save function which improves play slightly over the cassette game.

REVIEWS

FINGERS on the fire button please! A super collection of trigger-happy delights for all shoot-'em-up addicts this month booting up with **Rainbird**'s set-to-become-a-legend game ***Carrier Command*** – play the action game and you'll wear out the fire button on your mouse before you reach Claire Edgeley Island. Zap those nasty alien life life forms in **Psygnosis**'s graphic shoot-'em-up adventure ***Obliterator***, set in a platforms-and-ladders scenario of the future.

Then again, take to the skies with **Sega**'s ***Blade Eagle***, **Mirrorsoft**'s ***Spitfire 40*** or even ***Galactic Invasion*** over from the American software house **Microillusions** as is the aptly named ***Fire Power***. Brand spanking new software house **Exocet** plump for vertical take off as well with their fill-the-baddies-full-of-lead epic ***Foundation's Waste***. Fly through future fantasy with ***Crosswize*** from Firebird – they've got the bullets if you've got the energy!

Arcade action offers exciting exploration and a fair bit o' blasting this month with **GO!**'s ***Bionic Commandos*** on the Commodore and ***Karnov*** on the Spectrum from **Electric Dreams**.

What? Some of you want some other buttons to press rather than fire? We can give you that – sophisticated puzzles may push you over the top in ***Sophistry*** or there's the ST conversion of the brain-draining ***Deflektor***. Or would a bit of gambling be in order? ***Strip Poker II*** from **Anco** will help you get something off your, or someone else's, chest. Stripped for action and ready to reveal all on the reviewing front this month are **Richard Eddy, Robin Hogg, Nik Wild** and **Stuart Wynne** – the boys are back in town.

LEAD REVIEWS

CARRIER COMMAND

Are your eyes deceiving you? Doncha believe it – *Carrier Command* is here and set to roar across a massive three page special. We've got the full lowdown on how it plays, tactics, strategies and masses of screen shots so you know just what to expect. Why did we rate it so highly? Find out on . . .

PAGE 39

KARNOV

Electric Dream's colourful incarnation of the jovial Data East coin-op hits the first home micro this month. How could they do it on the Spectrum, it's simply so addictive?

PAGE 46

BIONIC COMMANDOS

Software Creations have converted over to the Commodore 64/128, (with Spectrum, Amstrad, Atari ST and Amiga versions to follow), GO! are publishing it – we've reviewed it and it's well worth the wait.

PAGE 67

PANDORA

The good ship Pandora – but just what is happening aboard her? We've investigated the futuristic graphics, indulged in the intricate puzzles, dabbled with the seventh generation computer just to discover what is in that box of tricks.

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THE DAY HIS NUMBER CAME UP

CAPTAIN BLOOD
Infogrames

Avocative graphics coupled with music by Jean-Michel Jarre have helped make *Captain Blood* quite probably the most eagerly awaited French 16-bit computer game ever. Here we review the ST game, an Amiga version, at the same price, will be released at the end of May. The complex scenario – worth the explaining in some detail – has been written by **Philippe Ulrich** and the programming handled by **Didier Bouchon**.

Bob Morlock is a programmer down on his luck. Trying to forget his problems at the local amusement arcade, Morlock runs into *the* Charles Darwin. Now preferring to be known as Mortimer Slithe, Darwin's latest epoch-making theory is that aliens have arrived and are among us – inside the arcade machines.

Morlock is so worried by this idea that he resolves to program a super version of himself to battle the apparent evil in computers. To help his digital alter ego – named Captain Blood – Morlock develops a spaceship called the ARK. When all is ready Morlock types in RUN, and disappears . . .

Somehow Morlock has become Captain Blood and finds himself inside the ARK facing its sophisticated, biomechanical controls. Before Blood can adjust to this radical state of affairs his ship comes under attack from 5th generation Space Invaders. Blood quickly orders the ARK's biconsciousness – Honk – to enter hyperspace. Unfortunately a malfunction in the hyperdrive leads to Blood being cloned 30 times – each clone taking part of the Captain's vital fluid. Unless Blood finds these clones – referred to as Numbers – and regains his fluid, he must die. Almost immediately he begins weakening and increasingly the ARK's biosystems have to replace his internal organs with artificial ones. If a Number is not found quickly his hand shakes (suffering from the ETs?), making the ship far harder to control.

Morlock was one of the greatest computer gamesplayers ever and as such, recovery of the Numbers might have been easy were it not for the ARK's size which makes planetary landings impossible. Blood is resigned to his unhappy fate until the ARK encounters a fleeing Oorxx. Honk sets about examining it and proposes that they should modify its genes to control the offspring, and produce Oorxx biomissiles. Blood eventually agrees to this and the modified babies are born.

HYDRA

Movement through the galaxy is via a fixed hyperdrive system. When the coordinates of an interesting planet are found, Blood's hand aligns the crosshairs on the galaxy map and presses hyperspace. An impressive sequence follows, which can be speeded up by holding down the right mouse key – as can the even better planet destruction sequence. Both these are simply ST graphic masterpieces. With 32,768 planets, whose locations change for each game – and many of which lack life forms – it is advised that you know where you're going and don't just pick planets at random.

Feeling mean? Take delight in destroying a whole planet

When orbiting an interesting planet, an Oorxx can be launched to make a landing – if Blood can guide the creature down one of the planet's canyons to make a landing. On some planets missiles add to the drama by requiring very low-level flight over the highly impressive, and fast, wireframe fractal graphics. If the Oorxx survives and there's life on the planet an alien greets it and Blood can converse with it via the Universal Protocol/Communication (UPCOM).

UPCOM is an icon-driven system, so when an alien speaks icons are printed on the left of the screen and these can be translated by Blood running his hand over them. To reply Blood scrolls a long-strip of icons at the bottom of the screen to put together the right sentence. When finished the sentence is spoken by pressing the UPCOM's mouth. Initially this icon system seems a good idea with all possible icon/words easily reviewed by scrolling. Unfortunately the lack of words such as AND, or even just a full stop, result in very fractured sentences which are both hard to understand and form. If Infrogrames had seen fit to include a list of standard questions and phrases, the system might have been easier to operate – as it is it can be very frustrating.

The manual describes 13 distinct types of alien and all have very attractive, minimally animated pictures to represent themselves by. Some will want to be teleported aboard the ARK and taken to a special planet. Other aliens such as the militaristic Croolis-Var and Croolis-Ulves will proffer shopping lists of planets they want destroyed. By contrast, Tubularbrainers speak in code, while Sinox creatures won't communicate at all without a password. Many of these creatures want to see the Onodyantes who appear beautiful to those they like, and horrific to those they don't. Getting the location of your clones, or Numbers, from all these aliens won't be easy.

Fortunately when the game begins it is 800 years after Blood's quest began and 25 Numbers have already been beamed aboard and destroyed. The five remaining clones have radar scramblers and all – but most especially number Five – are determined to stay alive. Blood has 45 realtime hours to find the Numbers before the game ends. When progress is made in this substantial quest the game can be saved to disk, but to discourage frequent saving/reloading as a kind of cheat mode, old games can only be loading during the first five minutes of a new game.

Surveying the planet in preparation for a surface reconnaissance

ATARI ST Diskette: £24.95

The design influence of the French magazine Heavy Metal **and** Alien **designer HR Giger help make** Captain Blood **the most stylishly evocative game the ST has yet seen. Just as in** The Pawn **the desire to see more graphics provides a powerful incentive to keep playing long after the magnificent Jean Michel Jarre intro tune has finished. Unfortunately the difficulty of actually communicating with the aliens makes success difficult and often frustrating. It is also irritating that the game only allows one save per disk. Nevertheless for adventurers seeking an exotic, new twist on the adventure format** Captain Blood **is certainly worth some serious consideration.**

OVERALL 74%

" . . . the most stylishly evocative game the ST has yet seen."

GARISHLY DRESSED WOMEN

TARGET: RENEGADE

Imagine

After the wide-ranging success of the Taito coin-op conversion, *Renegade* (reviewed TGM**001**, Imagine have brought out the inevitable sequel, but this time it is an original game following its predecessor's violent footsteps, design and programming by the in-house Imagine team.

No sooner have you rescued your girlfriend from the clutches of marauding gangs than you find that your brother Matt has been murdered. Matt was killed investigating the heinous activities of Mr Big in your proud city of Scumsville. Enraged by this you decide, with typical disregard for the normal, due processes of law, to murder the villain in revenge.

Straight out of the lift and into trouble, car parks are dangerous places – Spectrum screen

The first confrontation scene occurs in a multistorey car park where Hell's Angels take their Harley Davison's for a workout. First kick them off their bikes, then deal with them hand-to-hand. Biker number one has a baseball bat in his saddlebag and if you don't get it first, the other bikers will, one holding you while another tries to score a home-run with your head.

But of course, these mealy-mouthed specimens of sub-humanity should be little of a problem, and having despatched them, there is a lift to take you down a level, where a second wave of homicidal saddle striders are determined to send you the way of your brother.

The fourth level – the ground floor – has a bank of phones and one rings. Answer it and it's on to the next confrontation; take too long handling your assailants, however, and you won't make it to the phone in time – thus ending the game. Eight minutes are allowed to get to the phone, and a new time limit starts with the next scene.

You encounter some ladies who earn a living by dressing garishly and hanging around in carparks – Commodore 64 screen

THE DIFFERENCES

Among Mr Big's business interests there is, apparently, a link with women who earn their money by wearing very garish clothing. On a poorly lit street of Scumsville you must deal with these ladies – who have a practised kneeing motion – in your usual, indelicate fashion. Somewhat tougher than the women you're manfully disposing of are their bosses, who are adept fighters with their walking sticks. One boss has a gun with a limited number of bullets – until the gun is empty you should avoid him and dodge the bullets.

Wearily, you emerge in the city park where a gang of skinheads want to feed you to the ducks. Defeat them and dash on to the shopping mall where fans of the Beasty Boys are shown to be yet more employees of Mr Big. Their canine pets have not, it seems, been fed in a very long time.

The final confrontation takes place in Mr Big's bar, a dive packed with his bodyguards. Add them to your already massive bodycount and Mr Big will take you on himself . . .

Of the two versions reviewed here, the Spectrum wins out: *Target: Renegade* is a disappointing sequel for Commodore owners. While the graphics are sharper than in *Renegade*, they are also duller. The in-game tune is fair, but sound FX are poor when selected. However, it is the game's playability that really ruins the sequel; it is repetitive and overly precise – the demand for pixel-perfection in disposing of enemies that rarely, if ever, exceed two on screen simultaneously, soon becomes irritating and provides the game a specious toughness. Spectrum combat, while tough, doesn't require the irritating accuracy of the Commodore version and the character seems a lot harder so that you don't need a weapon right from the start simply to survive. Another huge advantage is the two-player mode, with both represented on screen at the same time allowing exciting team play.

COMMODORE 64/128
Cassette: £8.95
Diskette: £12.95

The best part of this game, it has to be said, is the multiload which isn't required until level four.

OVERALL 52%

SPECTRUM
Cassette: £7.95
Diskette: £14.95

The 48K Spectrum version is burdened by the need for each level to be loaded in separately, but it's worth it as playability is so much better. A distinct improvement over the original, the Spectrum game is a very good sequel – and tough – indeed.

OVERALL 85%

OTHER FORMATS

An Amstrad version should be out by the time you read this, cassette: £8.95, diskette: £14.95, and a ST version is planned for a June release. The Amstrad Renegade **was one of the best versions, and we expect similar of the new game.**

" . . . a disappointing sequel for Commodore owners, the Spectrum game is a very good sequel . . . "

FEDERAL LARCENY

OBLITERATOR
PSYGNOSIS

A purely 16-bit company, Psygnosis (mystical knowledge of the mind?), was one of the first British companies to write for the Atari ST/Amiga market, and have shown a steady improvement in their products since then. With design/coding by **David Lawson** and graphics by **Garvan Corbett**, *Obliterator* is, as its appearance immediately testifies, from the same team who programmed the successful, innovative *Barbarian*.

Even the floors don't provide protection against Drak's weapons – ST screen

The Federation was like a gigantic amoeba, absorbing civilizations without thought; those few advanced alien societies able to resist earned the unsubtle attentions of the Obliterators: bio-engineered warriors selected at birth and trained from childhood to be the shock troops of the all-consuming Federation.

But that was centuries ago, now, as the Federation encounters a foe mightier than any before, there is only one Obliterator remaining – Drak. Already the entire Star Fleet – a once irresistable military machine – is now debris at the hands of an alien spaceship which is heading toward Earth. For the last of the Obliterators there is a mission upon which the fate of the Federation, and planet Earth itself, rests.

Federation Elders intend matter-transporting Drak aboard the alien ship. Once inside, he is to fight through the androids, robots and aliens crewing its hundred-plus screens and eventually disable the ship by removing essential components from its plasma drive engines, battle shields and main weapons, leaving it vulnerable to a few hastily commissioned Federation strike ships. Before they deliver the death blow, however, Drak must also obtain a vital computer datapack – for Federation examination – and activate the escape shuttle.

SPACE WITH ATMOSPHERE

Exploration of the spaceship is by the usual Psygnosis flick-screen method which, on both machines, seems very sluggish until one gets used to it. The alien creatures seem infected by a similar slothfulness, particularly if there are more than one on screen, but in both detail and variety they are consistently impressive. Once the five tasks have been accomplished, an escape countdown begins before Federation ships attack. Failure to reach the shuttle in time results in the last of the Obliterators being consigned to history.

Drak's actions – a wide variety too – are controlled via a panel of icons at the bottom of the screen, much as in *Barbarian*, activated either by mouse or keyboard. A joystick can be used, however, to control direction and fire but not special functions such as defence, which allows Drak to safely roll past enemies. Other useful abilities include directional aim of Drak's gun via the mouse and preprogramming, so that if Drak is running toward a door, clicking on the enter icon instructs him to enter as soon as he reaches it. However this can become irritating when, in the heat of the action, an icon is pressed twice rather than once, especially as certain circumstances allow time for only one, correct response before an enemy kills Drak.

At first Drak is armed with a pistol and 25 bullets. While exploring the alien ship more ammunition can be found for the pistol, and also a rifle, blaster and bazooka are available. To protect Drak from enemy weapons he is equipped with a personal energy shield which can be recharged by alien regenerator chambers. An alternative icon strip, activated by the space bar, displays the amount of shield energy left as well as weapons, ammunition and objects carried. If the shield falls to zero then Drak dies – fortunately there is a save game option which is activated by entering certain regenerators or picking up various objects.

Looking very similar to the Atari ST game but for the slightly enhanced icon panel – Amiga screen

Obliterator owes a great deal to *Barbarian*, but gameplay is markedly different with a lot more screens and much less emphasis on traps so that you can choose how to explore the game, rather than following a rigid path. Excellent graphics, good use of sound and an all-round air of quality are the hallmarks of all Psygnosis games. This often makes up for any deficiencies their products might have; *Barbarian* particularly suffered from dubious collision detection. In the case of *Obliterator*, the energy bar makes the game easier than its predecessor, perhaps too easy – witness the map in this very issue.

AMIGA

Diskette: £24.95

Noticeably slower than the ST version but compensated for by marginally superior graphics and the superbly atmospheric game theme. The limited save function (only one save allowed which goes directly onto the game disk) makes the game harder than on the ST. Obliterator**'s challenge is strictly limited, but for the moment Amiga games with this amount of atmosphere are few, assuring Psygnosis of another success.**

OVERALL 70%

ATARI ST

Diskette: £24.95

Drak moves considerably faster than his Amiga counterpart although the animation and use of colour are similar on both machines; unfortunately the ST's death scene suffers from a colour glitch. Obliterator **is not a bad game, the graphics and sound help make it above average, unfortunately it just doesn't have the challenge of previous Psygnosis programs.**

OVERALL 65%

OTHER FORMATS

At present there are no plans to convert Obliterator **to other formats.**

" . . . owes a great deal to Barbarian**, but with a lot more screens and less traps . . . "**

AT LAST!

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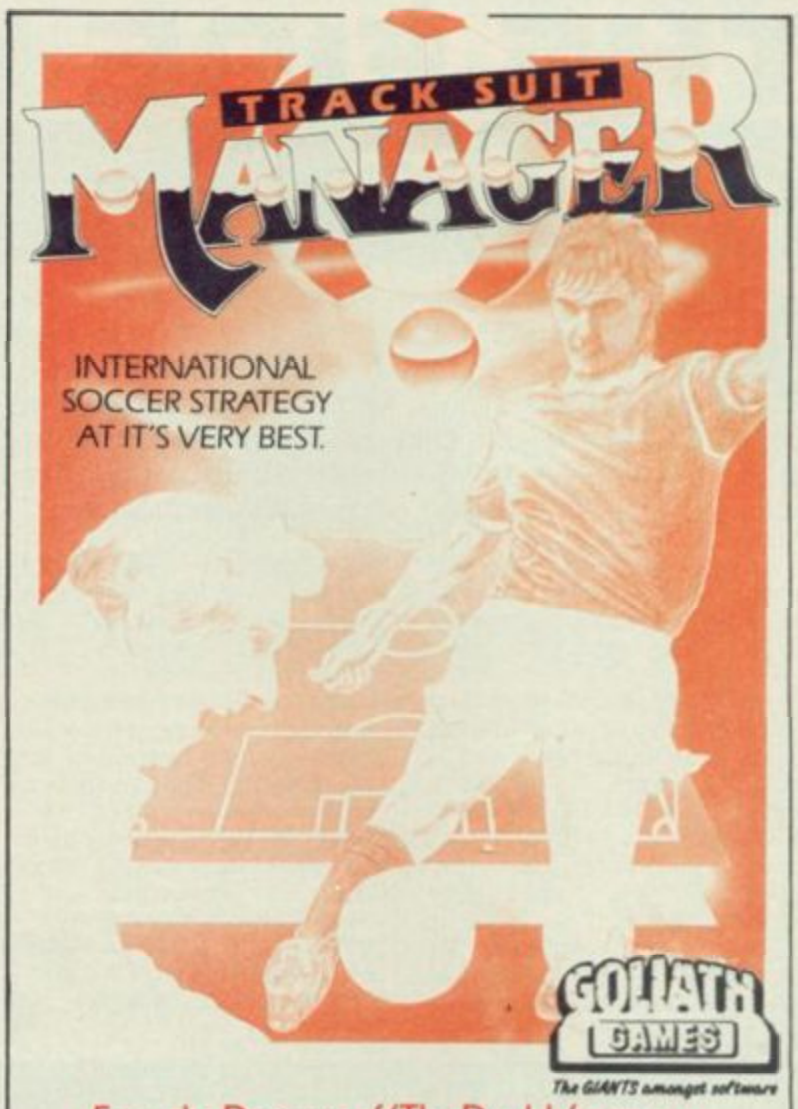

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COMMODORE 64, SPECTRUM

PRESS ANY KEY

THE FIRE LIZARD

SALAMANDER
KONAMI

One of the greatest shoot-'em-up coin-ops of recent times, **Konami**'s *Salamander* has already been released on the Spectrum and has now arrived on MSX – albeit in cartridge form. There are no plans yet for *Vulcan Venture* – the coin-op sequel – to be released on MSX, but it can only be a matter of time before it does make the translation to the Philips and Sony machines.

In deep space the Latis system comprises five planets, Latis and the four worlds which circle it. Peace has reigned in the system for 120 million years . . . until now.

The forces of the Salamander appeared out of nowhere. The reasons for the attack unknown, their objective frighteningly clear – total domination of the Latis system. The attack was too much for the defences and the planets quickly succumbed to the invading forces and their tyrannical rule.

On the planet Nemesis, the Emperor, seeing the invasion of the home planets, immediately ordered two space fighters to go to the Latis system and repel the invaders. The fighters ('Sabel Tiger' and 'Thrasher') are commanded by Iggy Rock and female pilot Zowie Scott.

Salamander is played over six horizontally and vertically scrolling stages, starting over Latis itself and working through asteroid stages, flying down over volcanoes, mechanoid bases, sub-space regions to finally confront the fortress on Odysseus, one of the outer-ring planets.

The options at the start allow for one or two players to indulge in simultaneous or alternate play. Team work is essential as the odds are stacked heavily against you – alien formations, asteroids, living rocks, jet-pac soldiers, Salamander fangs erupting from walls, laser barriers and bomb-firing gun emplacements are all out to end your rescue attempt. Like *Nemesis* and its sequel, shooting enemy formations or red aliens reveals capsules to collect, giving extra speed, bombs, ripple lasers, multiples and force shields. Shooting enemy pods reveals energy capsules, collecting 15 rewards you with special weapons such as Hawk Wind and homing missiles, Meteor and Screw lasers, twin and triple shot and an arming ball.

Further collectable items give a variety of effects, temporarily stopping the scrolling, fixing the multiples position, illuminating dark regions and equipping the ship with trample missiles (10-16 times the power of normal missiles). In two-player simultaneous mode, the ships can merge if the Combination weapon is selected, one player moves the ship and the other controls its weapons. All of these are temporary and often run out at the worst possible moment.

DECISIONS DECISIONS

On completion of stage two, you are faced with the choice of tackling further stages in any order. The decision screen shows the strength of the alien forces in each stage – the longer the time taken to decide, the more aliens there are to encounter in both the chosen and subsequent stages.

Clues on how to defeat the final enemies are available in the form of *The Prediction*, a six-chapter story, sections of which are accessed by destroying alien bases.

The scrolling is not very good in either horizontal or vertical planes but the quality graphics and excellent tunes playing throughout more than make up. The title sequence sets the scene for the game perfectly and is atmospheric and cinematic in quality. Although no significant improvement over games such as *Nemesis*, *Salamander* is still a good, tough, challenging shoot-'em-up fans of the *Nemesis* series will love.

AMENDMENT

Konami would like us to point out that F-1 Spirit: The Way To Formula One**, reviewed last month, is also compatible with the MSX-I.**

MSX-I/II
Cartridge: £19.95

In the coin-op game collecting capsules immediately gave you a set power or weapon, in this version a key has to be pressed to gain the bonus – making play with a hand-held joystick extremely difficult. Salamander **is Games Master compatible, so if you're having problems at least you can get to see all the stages by using the cheat cartridge. If you plug** *Nemesis 2* **into cartridge port 2, an extra level is added with an extra part of** *The Prediction* **hidden within it, revealing vital information for the complete destruction of the Salamander forces.**

OVERALL 82%

" . . . a challenging shoot-'em-up fans of the Nemesis **series will love."**

VERSION UPDATE

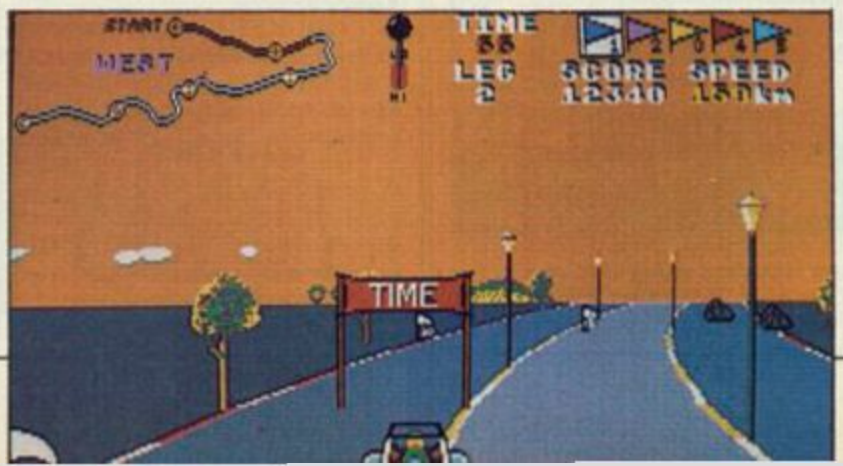
BUGGY BOY
Elite Systems

Atari ST Diskette: £19.95
Spectrum 48/128 Cassette: £7.99 Diskette: £11.99

BUGGY BOY is Elite's second release for the Atari ST. On the Commodore 64, *Buggy Boy* received a massive 92% in TGM**003** – a tough act to follow. The game is a road-race against time through five fiendishly tortuous circuits. Trees, barricades, rocks and other obstacles bar the way as the buggy bounces over logs, drives along the side of hills, through tunnels and over bridges, while collecting flags and passing through gates for bonus points and extra time.

Of the two versions here, the Atari game fares the better, with smart, neatly detailed graphics and very smooth scrolling. The buggy is a deceptively agile vehicle, nipping through gaps between obstacles with remarkable ease. The game is let down in places by average graphic effects – the explosion when a tunnel wall is hit and the weak attempt at mud spurting from the rear wheels of the buggy. However, much is made up for with its superb playability.

In an attempt to copy the coin-op, the Spectrum buggy takes up a third of the screen in height, an interesting feature which inevitably restricts its freedom of movement and obscures oncoming hazards, particularly when going over the crest of hills. Graphically, the program works well, colour is used cleverly and it all moves along at a fair pace. But where on the ST the buggy merely rolls and loses a little speed if it hits a rock, the Spectrum buggy explodes, which is unfair. It lacks sound too, with none at all on the 48K and limited to spot FX on the 128K, though there is an adequate sound track at the start. The 128K version also loads all five tracks at the start, while only the Offroad track is resident in 48K memory. Due to these differences the two Spectrum versions have been rated separately.



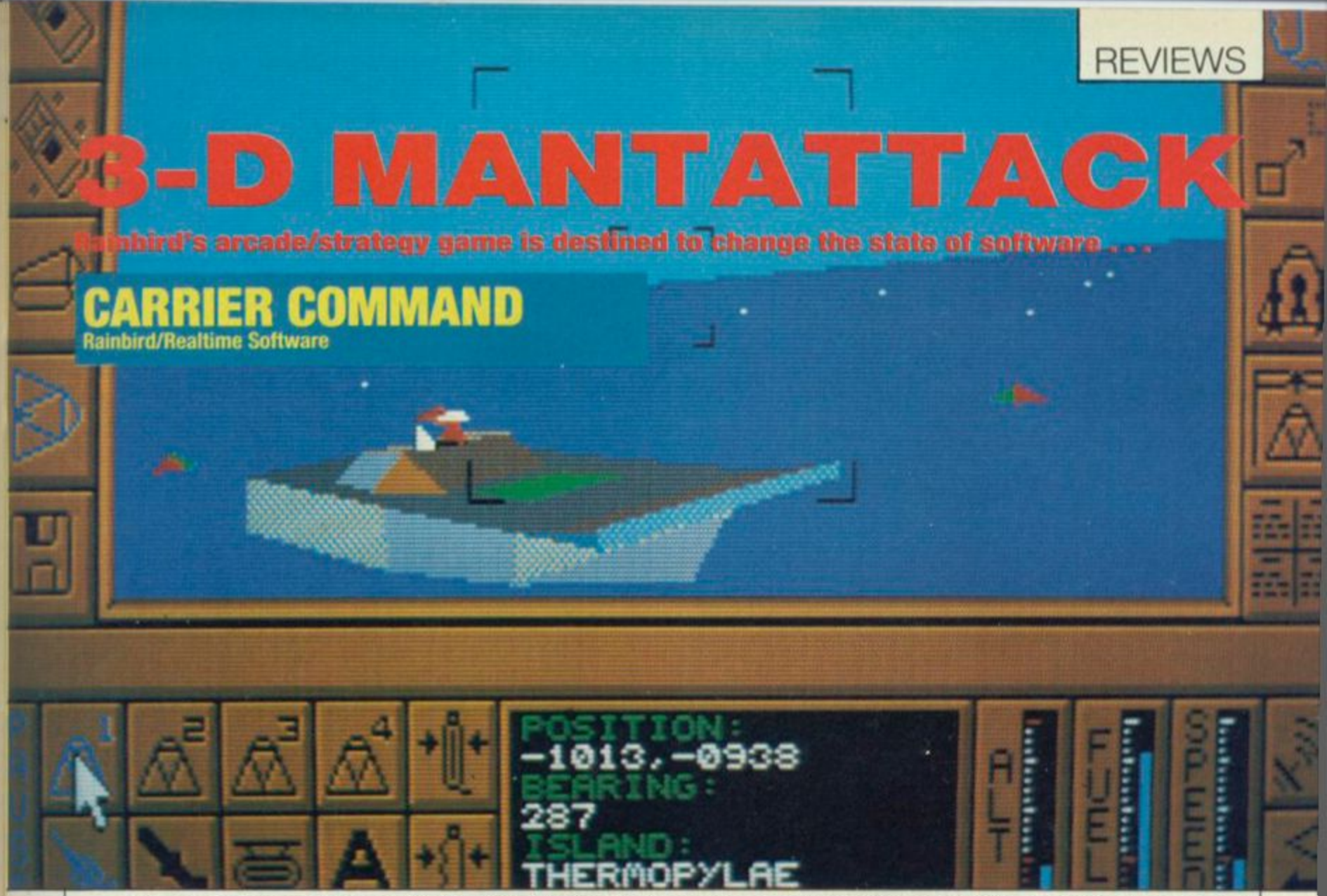
ATARI ST: 84%
SPECTRUM 48K: 74%
SPECTRUM 128K: 78%

3-D MANTATTACK

Rainbird's arcade/strategy game is destined to change the state of software . . .

CARRIER COMMAND

Rainbird/Realtime Software



Realtime Software have proved leaders in the field when it comes to creating fast moving 3-D graphics within games, having written the Spectrum and Amstrad versions of *Tank Duel*, *Starstrike* 1 and 2, *Starglider* and *Starfox* as well as *Carrier Command*, their first 16-bit program – and it is a classic.

The time is 2166 AD and an energy crisis sweeps the nation. Fossil fuels are running low with potentially catastrophic results, so it is seen as an almost miraculous event when a series of volcanic islands emerge from the sea, a vast energy source waiting to be tapped and exploited.

To capitalise on this unexpected but welcome find, two carriers, Epsilon and Omega, have been built and sent to opposite ends of the new archipelago; their mission: starting from both ends, to set up centres on the islands and mine, recycle and produce materials, eventually forming one giant power plant made up of 64 islands.

But (as in all the best world-domination-scenarios) Omega has been infiltrated by STANZA, and its computer software controlling all the carrier's operations has been modified so it is now at the command of the terrorist organization, which is demanding $15 billion ransom. Failure to pay would result in the Omega systematically destroying each island and thus destroying the energy source below.

The only solution is to send in Epsilon, with a sole human commander on board, against its computerised counterpart, and it is at this point that the game begins.

PLAYING THE WALRUS

On the title screen, the commander can choose either the Strategy Game (in which the majority of the islands are neutral and await occupation), the Action Game (a quick introduction with a network of islands already set up) or load a previously saved game from disk.

The carrier is a floating fortress; for its defences Epsilon is equipped with decoy flares and remote surface drones used to protect against enemy missiles; on the offensive, the carrier commander has at his disposal Hammerhead ship-to-surface missiles, an on-board laser cannon, Manta fighters (the future equivalent of the Sea Harrier performing ground attack, reconnaisance and air superiority roles) and Walrus amphibious tanks. Walruses are used to establish beach-heads and reclaim enemy islands.

Through an armament screen, Walruses can be loaded with chemical lasers, surface-to-surface missiles (guided *Starglider* style), fuel pods, a Virus bomb and Automatic Control Centre Builders (ACCBs). Mantas can be equipped with air-to-air missiles, laser cannon, communications pods and cluster bombs (reminiscent of the Dambusters raid as the bombs bounce toward their target).

ISLAND REALIGNMENT

The key to success lies in the formidable task of capturing the 64 islands.

A typical island reclamation operation involves arming up a Manta with a communications pod, and sending it to provide long-range communications protection for those Mantas following behind – armed with ground-attack weapons and missiles – which are needed to give effective air cover. The communications pod effectively extends the range that both Mantas and Walruses may go – any craft going out of carrier-range explodes (preventing the enemy from recovering it).

Once a Manta equipped with a communications pod is circling a target island, the follow-up Mantas, equipped with ground-attack weapons and air-to-air missiles, fly in and take out the antiair and antiship defences. As soon as the defences are down, a Walrus can be sent in to throw a Virus bomb into the island's command centre, effectively realigning the island to allied status.

Once captured, islands join the allied network and commence

At the top of the page, the good carrier Epsilon heads towards a confrontation with her evil alter ego – the carrier Omega, seen below

producing materials. An island's purpose depends on the type of command centre installed: if the command centre is of the wrong type, destroy it with the laser cannon and send a Walrus equipped with the required ACCB across to the island. The ACCB then constructs a new command centre, and from this a new plant is built, giving the island a single purpose. ACCBs do different jobs depending on their type; so islands can be set up as resource centres (mining for raw materials), factory centres (where equipment for the carrier is created using materials shipped from the resource islands) or defence centres (defending key links in the network created by the Epsilon's capture of islands).

When supplies run low, Epsilon can return to the stockpile island to resupply. Before the carrier arrives, supply priorities can be set so that required equipment and fuel is stockpiled ready for transfer to the carrier once it is in range. Ammunition, fuel, other types of equipment and even Mantas and Walruses can be transferred to Epsilon (space on board permitting). If the carrier gets too far from the stockpile island, another island can be selected to act instead, although any supplies still on the former stockpile island are lost.

UNDOING DAMAGE

If the carrier is damaged, the commander can allocate priorities for systems repair by using the Damage Control screen. The more important the system, the higher the repair priority; below a 50% state of repair, systems become inoperative. The situation also dictates which systems must be seen to first; it is better, for instance, to repair offensive systems while attacking an island rather than repair the engines which are not going to be used immediately.

While the carrier is being repaired, Omega continues its conquest of islands. The only way to stop it is to take over the islands, slowing down Omega's occupation and at the same time weakening the enemy carrier's resources and power. Once Epsilon is in a strong position in terms of power and resources, the Omega – hidden on the map through its cloaking device – can be tackled head-on in a final, and very lethal confrontation.

TOP RANKING

To say that *Carrier Command* is complex is probably the understatement of the year. The game is rich in content and complexity and places demands on the player at all levels, from controlling a Manta through to keeping an entire network intact while fending off enemy attacks. Just playing the game for a few brief minutes is sufficient to grasp how much time and effort has been put into its design and programming – and as a piece of action it is no pushover, but then the best games never are. *Carrier Command* is a seminal game destined to change the state of software and, as such, ranks alongside such programs as *Elite*, *Knight Lore*, *Flight Simulator 2*, *The Hobbit* and many other classics.

ATARI ST

Diskette: £24.95

What makes Carrier Command **truly outstanding is the faultless combination of strategic gameplay and arcade action, and that coupled with the incorporation of some of the smoothest and fastest moving solid 3-D graphics yet seen on a home computer (barring, perhaps, *Zarch* on the Archimedes). Some graphical effects are cinematic in terms of smooth animation and quality – they're that good; a fine example of excellence at work can be seen in the sequence when the camera on the carrier deck pans across tracking a Manta as it takes off. In short, Rainbird have done it again, bringing us a masterpiece of coding which will almost certainly be THE game of the year.**

OVERALL 98%

OTHER VERSIONS

The list of other Carrier Command **formats is extensive, to say the least. The Amiga game is nearing completion (£24.95), followed by the Spectrum version (£14.95 with a Spectrum+3 diskette at £15.95). The game will also be released for Amstrad CPC machines (£14.95 cassette, £19.95 diskette, Commodore 64/128 (£14.95 cassette, £19.95 diskette), Amstrad PCW (£24.95), PCs (£24.95) and the Apple Macintosh (£34.95).**

"Carrier Command is destined to change the state of software . . . almost certainly THE game of the year."

CARRIER COMMAND STRATEGIES

Carrier Command – undoubtedly Rainbird's finest release – is not a game to be completed in an evening (we estimate some 30 hours even for the fast game). These hints and tips are for the ST version, but they will also largely apply to other, forthcoming, versions.

First objective is to get used to flying Mantas, piloting the carrier and driving Walruses. We've found the game is better played with the mouse because a joystick does not have the speed to quickly move from icon to icon – speed of response being vital when the battle really gets going. The computer will let you off with minor damage if your Manta hits the ground gently, but ramming it is, quite rightly, fatal.

The game is complex, so tactics will inevitably differ from person to person, but the generally ruling tactic to employ is to build up the island network before tackling Omega – without resources or armament you won't last long against her if you do try. Network structures will also depend on game tactics, but typical examples of efficient network structures include the wheel network structure (picture 2) – whereby the Base island is ringed with defence islands, and the Stockpile island (if elsewhere on the map) also has a ring of defence islands surrounding it. This particular example allows quick transfer of manufactured products to Stockpile while maintaining an all-round effective defence.

Alternatively, try a fan network with Vulcan as both Stockpile *and* Base island (as at the beginning of the game), and the other islands spreading out in a fan with defence on the outer edge, resources in the middle and factory islands nearest Vulcan (although it tends to be a grossly distorted fan due to the position of the islands on the map). These network structures are only recommendations and really the final decision is up to you, the commander.

A quick and no-nonsense way of eliminating enemy resistance is to destroy the island's command centre (pictures 7 and 8). It only requires four missiles to destroy, but it does mean a Walrus has to be sent to the island with a new ACCB – although by doing this it gives the player freedom to choose what the island's new purpose will be: resource, defence or factory (picture 4).

Don't bother trying to shoot down Marauder fighters with the carrier laser cannon, it is like trying to hit flies with a pin and wastes both game time and player patience. Far better to destroy the island's ACCB rendering all of the defences passive.

When attacking islands at close range, turn the carrier round so the ship is facing out to sea. The reason for this is because viewing drones – launched to sight targets for the Hammerhead missiles – are almost always pushed backwards by the wind away from the carrier. By doing this, any drones launched will drift *towards* the island (which is now behind the carrier) and in the process reveal more defences to be targetted by Hammerhead missiles.

Setting the supply priorities correctly can mean the difference between life and death, so at the start of the game set priorities for Mantas and Walruses too high – at least they are being produced first, and they form the backbone of the carrier's offensive power, and without them you are in dire straits. As the game unfolds, priorities will, of course, change, but get at least four of each produced at the start.

Ignore Omega's progress at your peril! A loss of an island and its link to a single other island may look minor, but it reveals valuable information on Omega's whereabouts and, most important of all, its potential attack plan. Omega's computer is cold and calculating, cautious, attacks without mercy, and is extremely ruthless in its operation, so you have got to keep your wits about you at all times!

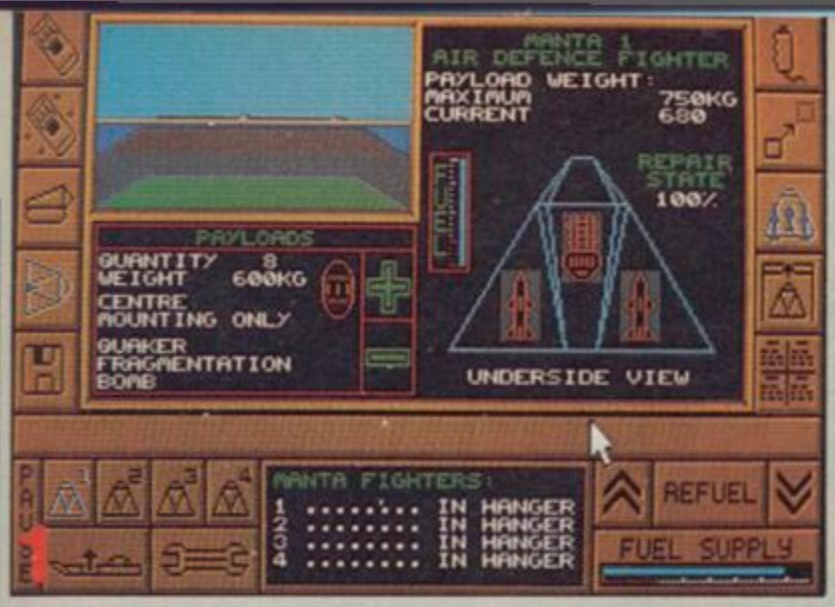
You may be wondering if there actually *is* an enemy carrier in the game! (given that it does not show up on the map). It has a cloaking device rendering it invisible to all but visual and close radar detection (according to Rainbird), but if you do want to see the source of all your troubles (picture 6), perform the following actions:

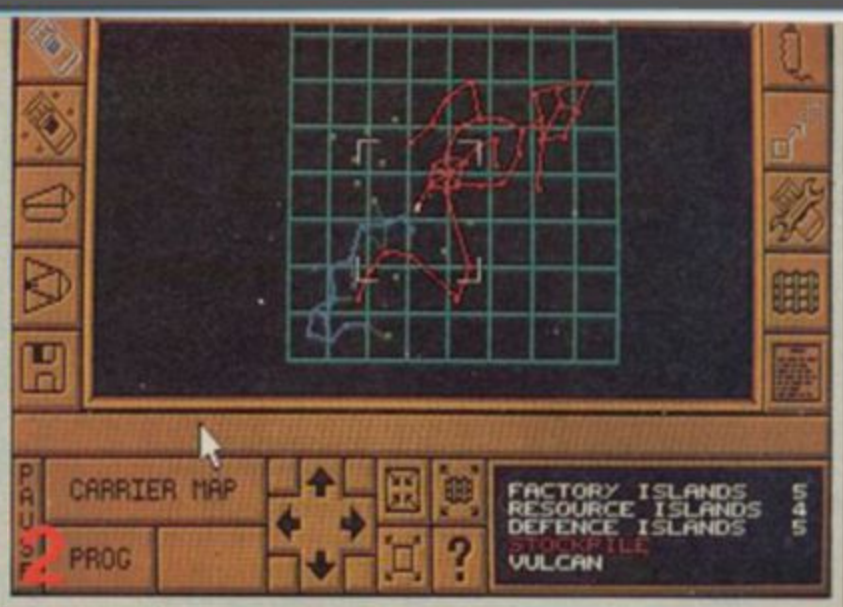
1. Select the Action game from the title screen.

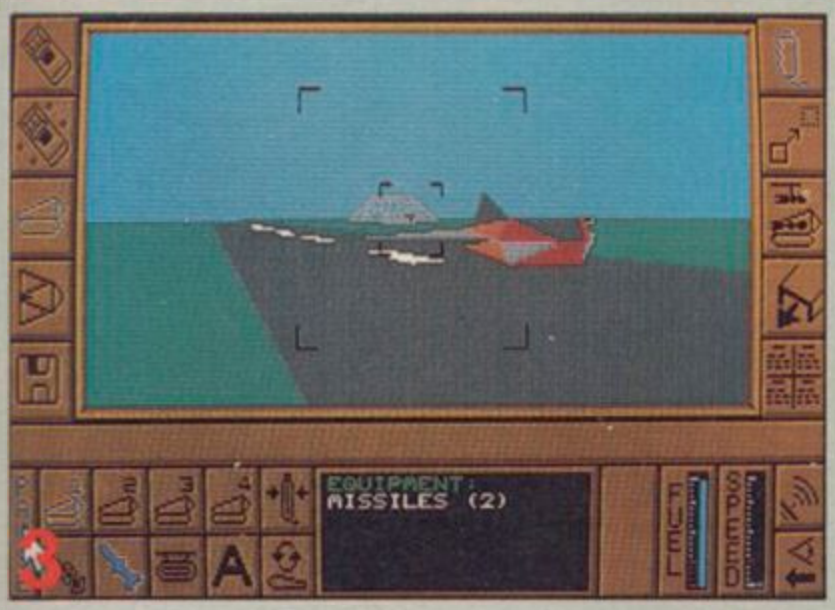
2. Immediately move your carrier into position off the north-west corner of Storm island and wait for Omega to assault the island (you generally have to wait around 50 minutes before it gets around to tackling the island). Don't position yourself too near the island otherwise Omega will not move in to attack – about two minutes flying-time away (as the Manta flies) is generally the best position to take up.

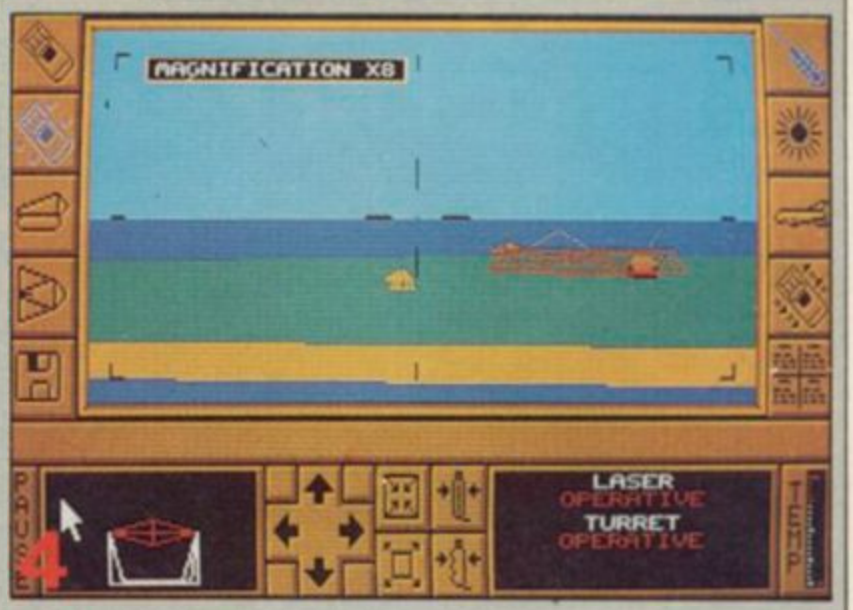
3. The attack on the island is heralded by the message STORM IS BEING ATTACKED. Once this appears you should have enough time to send a Manta to the island and see the Omega in all her evil glory off the coast of Storm (provided that she hasn't already taken the island before the Manta gets there, if this happens she will have moved on).

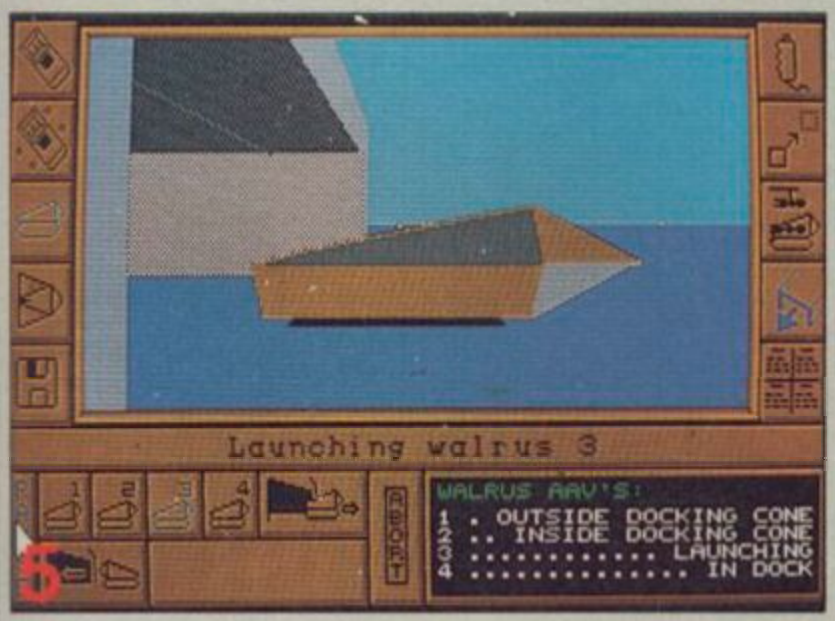
Apart from that, all we can suggest is that you have a blasting Realtime with *Carrier Command*.

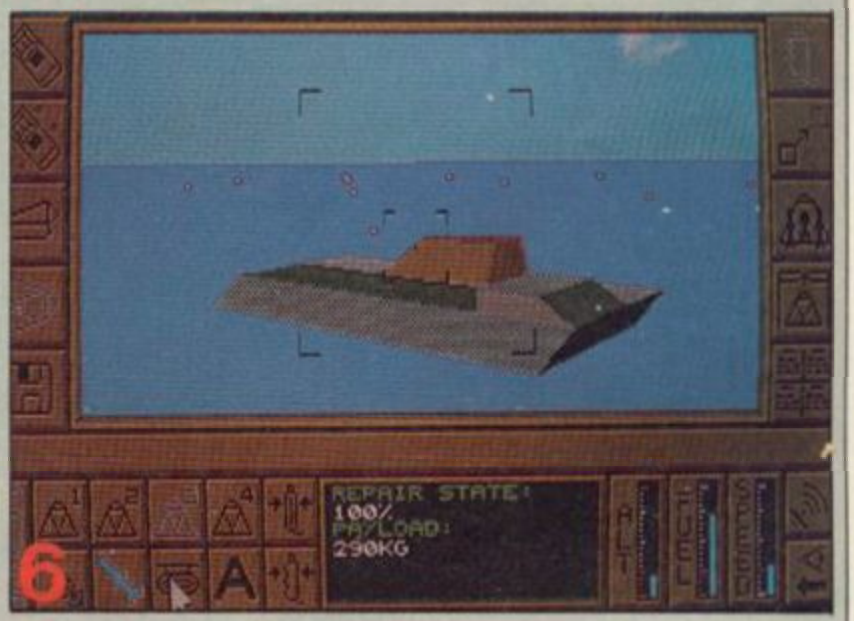




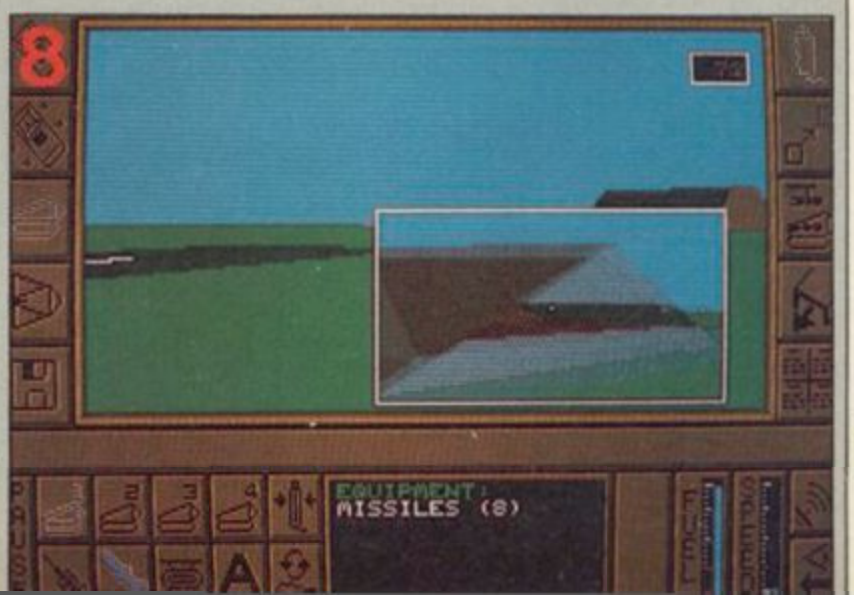








PICTURE 1 *Armament selection for a Manta to suit its intended job is important: here, one is being loaded with two Assassin missiles on the wings, a centre-line laser cannon, and in the selection area (right) is a Quaker bomb ready to be loaded.* **PICTURE 2** *The wheel structure is an efficient command strategy. Omega's island network (in red, Epsilon's is in blue) is based on one, which can be seen just north-east of centre.* **PICTURE 3** *Much of the action takes place on the many islands, here a Manta can be seen just touching down on dry land on an island runway.* **PICTURE 4** *One of Epsilon's ACCB units busily building a new command centre on a captured island.* **PICTURE 5** *An amphibious Walrus tank is launched from Epsilon's rear sea doors.* **PICTURE 6** *Invisible on the map because of her cloaking device, evil Omega can be discovered by following our hints on the other page!* **PICTURE 7** *View from a Manta (the icon on the far-left indicates a Manta) as it comes in for a low-level attack on an enemy command centre.* **PICTURE 8** *Fire! The Walrus icon indicates a ground attack on a command centre. The window at top-left is the harbinger missile's point of view as the commander guides it* Starglider *style toward its target (which is blurred on our photograph because of the speed).*



PRESS ANY KEY

OUT IN THE COLD

BEYOND THE ICE PALACE

Elite Systems

The development of original 16-bit games by Elite was covered in a feature in TGM**005**. *Beyond The Ice Palace* is one of the first such games produced by Elite's new corporate structure. **Ian Upton**, one of Elite's two dedicated game supervisors/producers, designed the basic 16-bit game with conversions being handled in-house.

In a game often reminiscent of **Ghosts And Goblins**, *you are confronted by the denizens of evil – Atari ST screen*

According to legend there is a land beyond the frozen Ice Palace where Man has yet to establish his drab dominion, a land where magic still reigns supreme and sorcery colours even the most everyday deeds. For millennium upon millennium the magics of both good and evil have been finely balanced so that neither force was able to rise to supremacy. In a place where fantasy and reality could but rarely be told apart, there was a kind of balance that only now has failed.

The cause of this tragic disharmony is the burning of forests by demons seeking to destroy the homes, and lives, of people living there. Appalled, the ancient spirits of the woods met together and forged a challenge to the demons; they created an enchanted arrow, then shot it into the sky to fall wherever the wind decreed.

The sheer carelessness of evil is an advantage to be exploited

LONG, WINDING PATH

Whoever finds the sacred arrow shall be taken into a battle of titanic proportions where only complete success will banish the forces of evil from the forests. To help the quest the spirits have vowed to come to the player's aid when called – but the tokens by which they are called are not found easily. Fortunately further help is provided , by the sheer carelessness of evil in scattering numerous, useful weapons all along this perilous journey into darkness.

Beyond The Ice Palace is, as it turns out, not so very far beyond that other Elite game – *Ghosts And Goblins*. The choice of weapons scattered throughout the game, temporary invulnerability after losing a life and simply the way the man moves are all very suggestive of the Capcom coin-op. Summoning spirits to help in particularly frantic moments is an innovation of sorts, but it is also proves difficult to use, since the spirit kills or harms only what it directly touches on its slowly winding path.

ATARI ST

Diskette: £14.99

In terms of presentation, both graphics and sound are very professional – with the latter given to distinct variations – which encourages persistence. Actual play is a lot like Ghosts And Goblins**, although not quite so addictive. At first the game seems very hard but once patterns are learnt it becomes a little easier until new, even harder, levels are encountered. For fans of this style of game,** Beyond The Ice Palace **is an entertaining variation which, while not very original, is still worth considering.**

OVERALL 76%

AMSTRAD

Cassette: £9.99
Diskette: £14.99

Comparison with Ghosts And Goblins **is inevitable at first – there are many striking similarities. However, it's instantly playable and in fact a marked improvement on** Ghosts And Goblins **all round, proving to be thoroughly enjoyable. The animation is excellent, reminiscent of** Thundercats**, and the Amstrad's colours have been put to very good use. In particular, the sound is well done, the title screen tune proving catchy and pleasant on the ears. The Amstrad has had its fair share of platforms and ladders games but** Beyond the Ice Palace **is a polished program offering a lot for the player in terms of challenge, addictive qualities and instant appeal. A fine game of its genre.**

OVERALL 78%

OTHER FORMATS

Remaining 8-bit releases are due on May 23. Commodore 64 prices are £9.99 cassette, £11.99 diskette; on the Spectrum: £8.99 cassette, £12.99 +3 diskette. Conversions are being made from the original 16-bit design, and it will be interesting to see how they compare, but 8-bit versions of Ghosts And Goblins **were excellent, so there should be no reason to fear.**

" . . . not so far beyond Ghosts And Goblins **. . . an interesting variation . . . "**

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SNAKE SPIT!

VENOM STRIKES BACK
Gremlin Graphics

According to Gremlin Graphics, the MASK series, of which *Venom Strikes Back* is the third, has sold well. 'We have aimed the games at the 16 and under age-group – simply because this is the market who already have an interest in MASK from the TV series or comic books,' says **Richard Barclay**, Gremlin's Marketing Assistant. 'It has been a very worthwhile product license, but whether we do a fourth is dependent on how well this one sells.' *Venom Strikes Back* is written by **Mark Rogers** and **Colin Dooley**.

Matt Tracker stars once again in a heroic quest - this time with a personal interest. VENOM – the evil network run by Miles Mayhem – has captured Scott (Matt's son), and is holding him captive in the VENOM base on the moon's dark side.

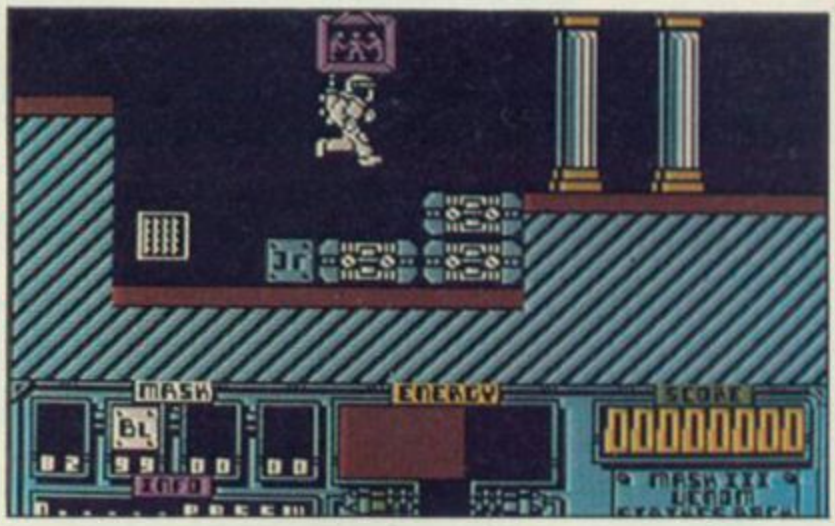
The action takes Matt, equipped in spacesuit, across the moon's surface and underground complex, both heavily guarded automatic defence systems. The background scrolls from left to right on the Commodore 64 version while the Spectrum and Amstrad use a flip-screen technique.

Matt's armour is enhanced by collecting three types of icon: Penetrator – rendering him invincible; Backlash – a standard laser weapon; and Jack Rabbit – providing flying power and two-bolt laser fire. All three are limited but may be replenished by picking up further icons. The fourth item Matt can collect is a Healer, which replenishes energy – indicated by a bar – lost when Matt is struck by VENOM's defence systems.

There are three levels in *Venom Strikes Back*, the last two accessed via a password awarded when the previous level has been completed – a useful feature which avoids having to begin each new game from the beginning. In fact there is little depth to the game, but it wins out through its addictive qualities which should keep you battling Miles Mayhem for many hours.

MSX II
Cassette: £7.99

Expected any day, we have high hopes of this version being one of – if not the – best. Watch out for an update next issue.



Slightly less hectic than the Commodore game, the Spectrum Matt Tracker leaps across obstacles in an effort to save his son

SPECTRUM 48/128 Cassette: £7.99

The platform/shoot-'em-up action comes across very well on the Spectrum – graphics are detailed and colourful enough to create a suitably pleasing effect while creating hardly any colour clash. The animation and action maintains a high level of speed even when there is plenty going on. With no gameplay difference between 48K and 128K versions, the latter does, however, feature an additional tune. Although the concept is simplistic, Gremlin's polished programming makes it a slick, compulsive game to play.

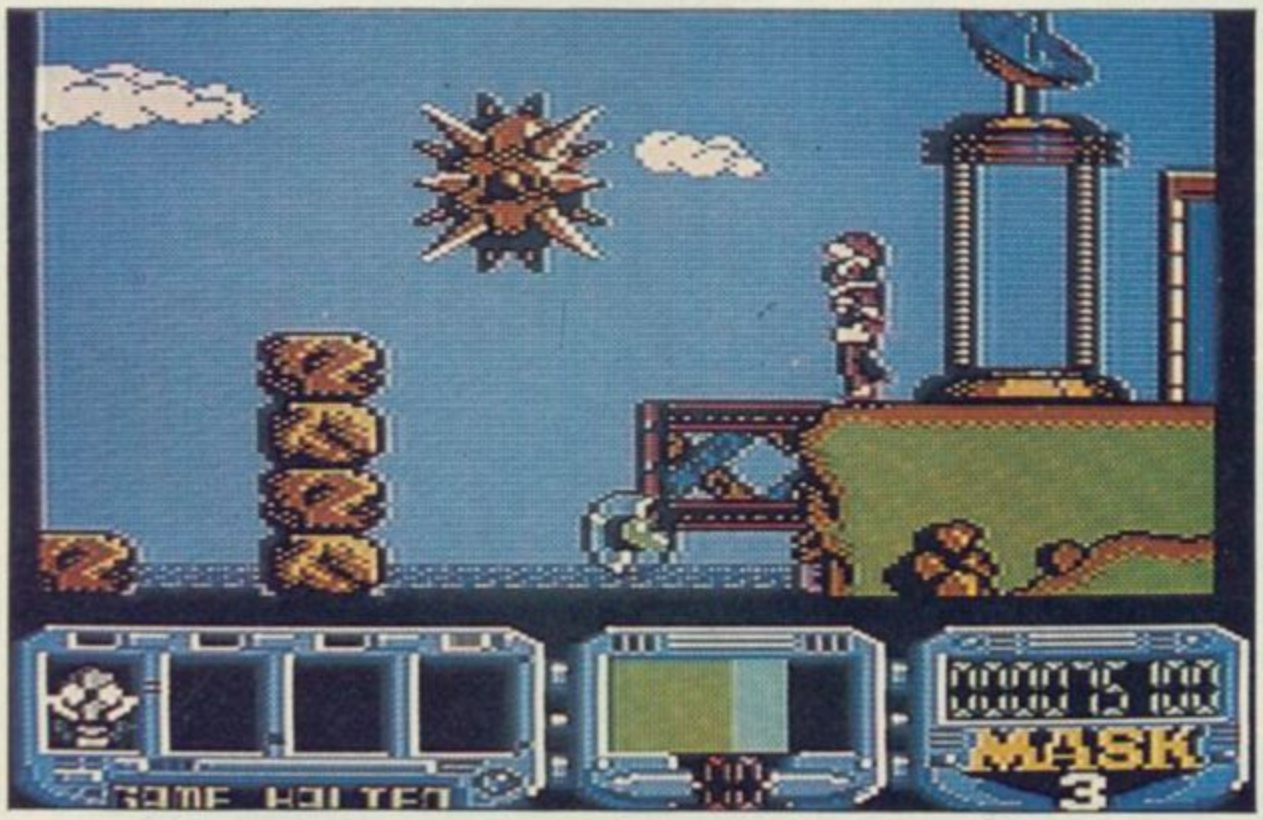
OVERALL 80%

COMMODORE 64/128 Cassette: £9.99, Diskette: £14.99

After the pleasing Spectrum version the drab and lifeless Commodore game is a big disappointment. The tidy graphics featured on other formats have been replaced by chunky, unexciting designs which do not give a good first impression. Gameplay is a bit too difficult to become addictive – the fun of the platform element being marred by the demands of pixel perfection, leaving little chance to hurtle along and making it all too fiddly to encourage perseverence.

OVERALL 63%

Matt Tracker courageously avoids a Deathsphere on the dark side of the moon – Commodore 64 screen



AMSTRAD CPC
Cassette: £9.99
Diskette: £14.99

Similar to its Spectrum counterpart with the exception of graphics which have been used in mode 1 to provide four colours on-screen – apart from which – and a very slight reduction in speed – it is equally entertaining.

OVERALL 80%

" . . . its addictive qualities should keep you battling for hours . . . "

SWINDLED

STAFF
Infogrames

This French arcade game owes its existence to two rather eccentric programmers, **Stephane Canale** and **Rene Marc Dolhen**, both of whom enjoy reading science fiction and making films in their secret hideout. By contrast the graphics designer, **Christophe Andreani**, prefers to keep his personal interests private. *Staff* consists of two differing sections: a vertically-scrolling shoot-'em-up and a platform-style game.

The US Navy has covertly launched a Gruman X-29 aircraft into Soviet air space. The mission – for which a STAFF (Strategic Air Fighting Force) agent (codenamed Swindler) is thought eminently suitable – is to recover Atari ROM chips from a Russian base. Base access is via a six-character code hidden amid the complex scenery en route, parts of which are revealed when everything containing a red zone is blasted.

Joystick-controlled, the X-29 can fly left, right and gain height, although low-level flying is essential to avoid the worst of the Soviet defences. The X-29 has three mouse-controlled weapons systems. Easiest to use are the fixed cannon, fired by pressing both mouse buttons. To destroy objects not directly in front of the

X-29, there are moveable cannon and missiles. These are controlled by moving an on-screen crosshair; pressing the left button fires the cannon at the sight while the right launches one of 60 guided missiles. The latter are guided by keeping the sight on-target until hit. Using mouse and joystick at the same time is demanding – the best way to play *Staff* is with a companion.

REVEALING

Shooting surface plates reveals secret codes, then either the red locks or the entry door can be blasted. Once inside the installation, intense cold ices up the screen and has to be wiped away to allow viewing of a panel of codes – if the valid ones are not selected, the X-29 is ejected. Care must also be taken to clear all the ice away otherwise this will remain on screen until the next installation provides another opportunity to clear it.

With all Soviet defences overcome, Swindler is let into the base containing the ROMs. This second phase is a separate game, which can be started just by clicking on its icon on the second disk. On the first, two-screen level Swindler dodges enemy robots and collects his tools. Here, we have a simple platform variant with mediocre graphics and good, sampled spot FX – which also slow down the game. After all the tools are collected Swindler runs to the exit, before time runs out, to access the second level. This has different graphics, but an identical layout and only one object – a ROM chip – to collect. To rescue the second ROM codes collected in the shoot-'em-up game are used.

ATARI ST
Diskette: £19.99

Why anyone should release a game like this is almost as much a mystery as why anyone should want to rescue the Atari chips Jack Tramiel is so energetically trying to sell the 'Red Menace'. Without a second player the game is virtually impossible and even with a second player it is very hard simply to survive, let alone while memorising the various codes. Average graphics are supported by good scrolling, but poor explosions and an irksome tendency to show bullet hole lines on water as well as land detract. The second game phase is more playable, but still nothing more than a platform game. A mediocre budget game sold at full price.

OVERALL 32%

"A mediocre budget game sold at full price."

WASTING SPACE

GALACTIC INVASION
Activision

Galactic Invasion marks the beginning of a two-year contract between Activision and the American software house, **Microlllusions**. The game comes from the **One To One** series, all of which have split-screens for two-player action. The game designer is **Reichart Von Wolfsheild** with coding by **Katsumi Tayama**.

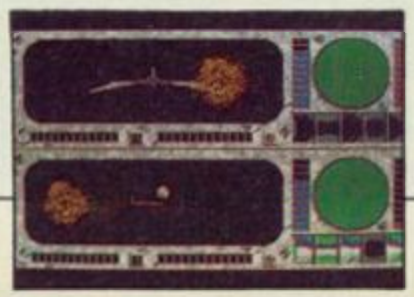
The scenario – characteristically short; Microlllusions prefer in-game instructions over booklets – concerns a war between two solar systems, each represented by a single spaceship. The ships are to collect five segments of a galactic warhead which, once assembled, can be launched from the safety of its own solar system to destroy the enemy's. There are three colour-coded sets of missile parts, red, yellow or blue; once the first section is collected colours of the other parts must match.

Parts are obtained by blasting satellites orbiting the various planets to reveal the warhead parts within. These are picked up by flying into them, although this is no easy task with the part continuing to orbit the satellite. Once all five sections have been collected, pressing fire launches the warhead.

Since the starfield is pseudo-3-D there is no need for up or down controls, simplifying game control. Joystick forward activates thrust, left or right rotates in the appropriate direction while backwards stops the fighter or, with fire pressed, activates a fuel-thirsty forcefield.

During both one- and two-player action the screen is split, the computer taking the bottom screen if solo play is selected. No lives are awarded, but players taking too much battle damage, running out of fuel or colliding with a planet or sun are returned to the starting point minus all warhead parts. Fuel is replenished by firing at meteors which either orbit planets (three hits for one point of fuel) or are part of a meteor belt (twelve hits for one point of fuel).

Galactic Empire is probably the most irritating game yet released on the Amiga, with its chief advantage lying in its two-player mode which lets each player keep out of the other's way to lessen the aggravation of enemy attack. The opposing fighter is never seen from any other view other than side-on – as one might expect from pseudo-3-D. Two players may also play *Galactic Invasion* via a modem – a standard feature of the One To One Series games.



AMIGA
Diskette: £19.99

A fairly good, ominous tune is provided, but an alarm warning of being trapped in a sun's gravity well – it happens all too often – would be far more useful. The graphics are disappointing, consisting of a bland control panel incorporating two green radar scanners and dual viewing windows. The satellites are of 8-bit standard and the planets and missiles are reminiscent of nurf balls. Not a product to give to one's worst enemy – he might ask you to play it with him . . .

OVERALL 20%

OTHER FORMATS

No other versions are planned at present.

" . . . probably the most irritating game yet released on the Amiga . . . "

RUSSIAN AROUND

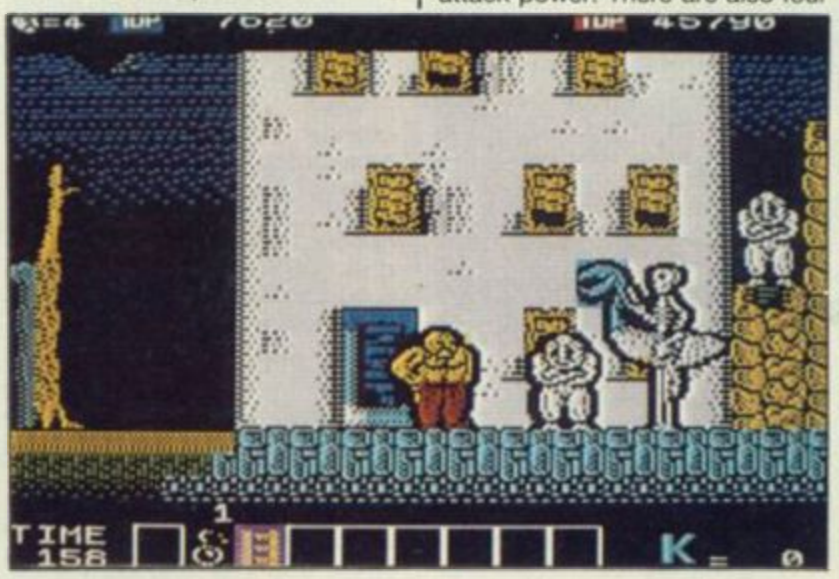
KARNOV
Electric Dreams

Data East's coin-op may not have made it into the top ten arcade machines last year, but it offered penny-pumping players an addictive combination of platform-and-ladders with violent monster bashing to add a touch of violence. Electric Dreams consider it the 'pinnacle of Spectrum conversions' (TGM**006** Previews). **Mr Micro** bring it to your computer screens, with able assistance from Electric Dreams' development centre, **Software Studios**.

To cut a long inlay short: Karnov, a Russian blessed with the power of breathing fire, has been volunteered to recover the Treasure of Babylon after its theft by the wizard Ryu from its resting place in the kingdom of Creamina. Karnov races and leaps his way through nine horizontally, and at times vertically, scrolling levels; each is loaded separately after the main program code.

His journey begins in Creamina and continues through fantasy lands which follow the arcade game's layout exceedingly well, packed with suitably placed platforms, rocks and steps. The conversion also features an accurate interpretation of Wyu's monster minions who appear throughout the game, coming in many shapes and forms ranging from flighty bats to skeletons riding ostriches bareback.

Each variety of opposing creature requires a unique battle tactic or weapon to kill it. Wyu has additionally brought the scenery to life, so statues and carved figure have to be carefully watched for any signs of animation.



Wandering through some buildings, Karnov is pitted against a skeleton riding bareback on an ostrich

Karnov is for one or two players, playing alternately. In two-player mode, if Karnov meets his end before completing a level, he restarts from the beginning of the level; one player, however, picks up from roughly the same point as the life was lost.

WEAPONS

Karnov gets harder further in, so the 11 types of weapon, and equipment, come in handy. Five items appear as collectable icons (stored at the bottom of the screen until required.) Ladders help get out-of-reach icons, boots double jumping power, bombs blow up opposition (and scenery), boomerangs and flames give extra attack power. There are also four other icons, but these can only be used at the appropriate time – wings to fly, a helmet to swim faster, a mask of perception reveals hidden icons and the trolley rolls downhill killing everything in its path. The two final icons are automatically used when collected – apples increase Karnov's flame throwing power and 50K symbols gains him an extra life.

Karnov is certainly one of the most challenging of recent *Ghosts and Goblins* variants. Its graphics are bold, bright and colourful – thanks to the masking system (similar to *Dark Sceptre* but without black areas round the characters.) The animation is articulate, but speed is lost when too much happens on screen at once. However, there are two annoying features: return to the start of a level after dying and the multiload. These two factors make it just fall short of 'the perfect arcade conversion' Electric Dreams were hoping for.

SPECTRUM 48/128
Cassette: £9.99

Sheer game size demands a multiload that proves annoying as you go back and forth between levels. 48K sound is limited to spot FX, on 128K there are a few jingles. Should prove popular, with stacks of lasting appeal in nine tortuous levels and addictive action.

OVERALL 88%

"Should prove popular, with stacks of lasting appeal . . ."

VERSION UPDATE

DEFLEKTOR
Vortex/Gremlin Graphics Atari ST Diskette: £19.99

VORTEX's quick-thinking puzzle game has been converted from **Costa Panayi**'s 8-bit original by **Jason Perkins**.

The objective of *Deflektor* is to wade through many circuit boards guiding a laser beam from the output port around the circuit and over to the receiver. However, before the laser can reach the receiver all the spheres on each level have to be eliminated – accomplished by hitting them with their laser.

The laser's direction is controlled by altering the angle of mirrors scattered around the screen and using refractors, fibre optics, and reflecktors to help. To complicate matters gremlins inhabit the circuit boards and fiddle with mirrors, making the laser shoot off course. Impositions are declining energy and the danger of overheating the laser.

***Light entertainment with* Deflektor**

– Atari ST screen

Deflektor is yet another masterstroke from Costa Panayi, author of *Highway Encounter*, *Revolution* and many more. The game is surprisingly simple to control yet highly addictive and the puzzle element is absorbing, but it requires a deal of quick thinking and a sharp mind.

The Atari ST is the perfect machine for such a game – the images are all sharp using a choice of colours which illustrate the action clearly. A difference between this and 8-bit versions is the lack of a practice option, which is a shame; however, as *Deflektor* isn't too difficult to get into, it hardly affects playability. Complete with a pleasant tune and functional sound FX, *Deflektor* should appeal to anyone who enjoys a bit of brain massaging as well as nifty joystick control.

ATARI ST: OVERALL 88%

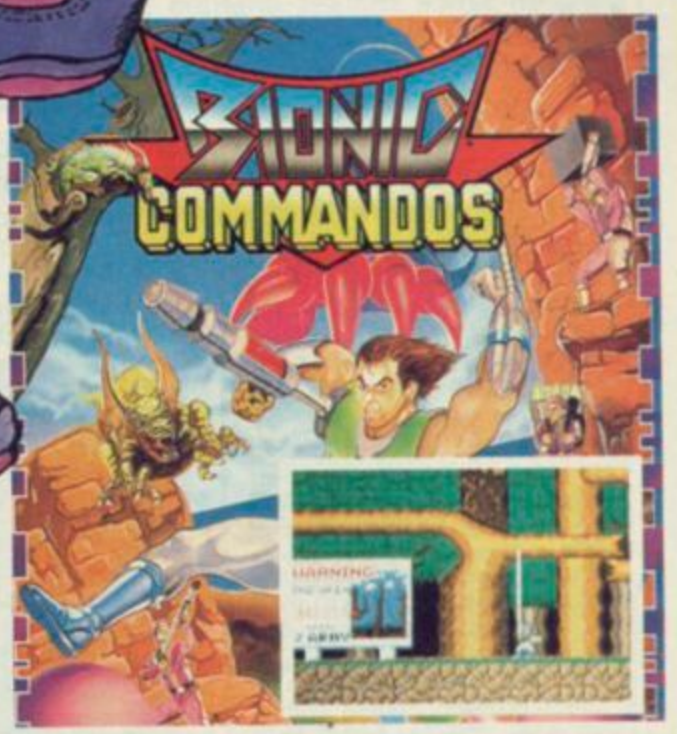
GET YOUR KICKS ON SIXTEEN BITS

Have you got what it takes

ROLLING THUNDER

undercover cop?

BIONIC COMMANDOS



SHACKLED

IMPOSSIBLE MISSION II

Screenshots taken from various 16 bit versions.

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YUPPIES IN SPACE

CORPORATION
Activision

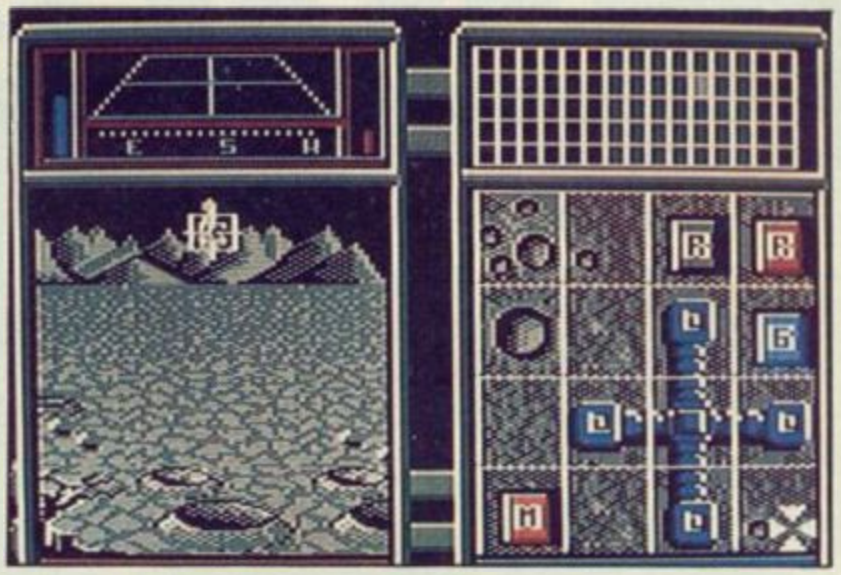
With stock market crashes all the rage, Activision cashes in by taking the battle for the profit margins into deep space. In general a two-player strategy game, *Corporation* is another title that brings together the team of programmers which worked on *Star Raiders II* for **Electric Dreams**. **Daryl Bowers** specialises on the Commodore 64 game and the Z80 programmer is **Simon Freeman**.

In the future, Earth's nations are no more. Entire countries are under the sway of massive Corporations which reap profits from deep-space mining. Without employment in a Corporation there is no hope, no roof over your head and – worst of all – no credit rating. A good financial status is the difference between life and death.

You are the Commander of a team of robots preparing to mine an asteroid for precious Minorthian crystals in a battle against time, for the asteroid is on a direct collision course with a small moon. The set quota must be achieved at all costs. Another problem is that a second Corporation is also intent on mining the asteroid for all its worth.

Corporation follows the pattern of those strategy/trader games once so popular on 8-bit machines, where you must juggle with provided elements and a given starting cash balance. In this case you can purchase from a range of six types of (MRU) Mobile Robotic Units, all of a different price and movement rate. Each has its own task ranging from surveying for crystals, mining, transportation to the Corporation refinery or attacking the rival Corporation's MRUs, for which purpose it's equipped with a gun or rockets. Each MRU uses either solar or fusion drive; solar powered units are cheaper but shut down when darkness falls, fusion powered MRUs are more expensive but can work continually. Credits to purchase the robots are limited – so choose wisely!

The screen is split into two, with the player's view of the asteroid on the left and the computer's (or another player's) view on the right. A grid map displays the asteroid as a whole, the refinery's position and the region currently in darkness. Below this, an 8x8 grid shows an enlarged view of a selected map point displaying MRUs, beacons and craters. The enlarged view is used to move the MRUs around the asteroid's surface.



MINER DETAILS

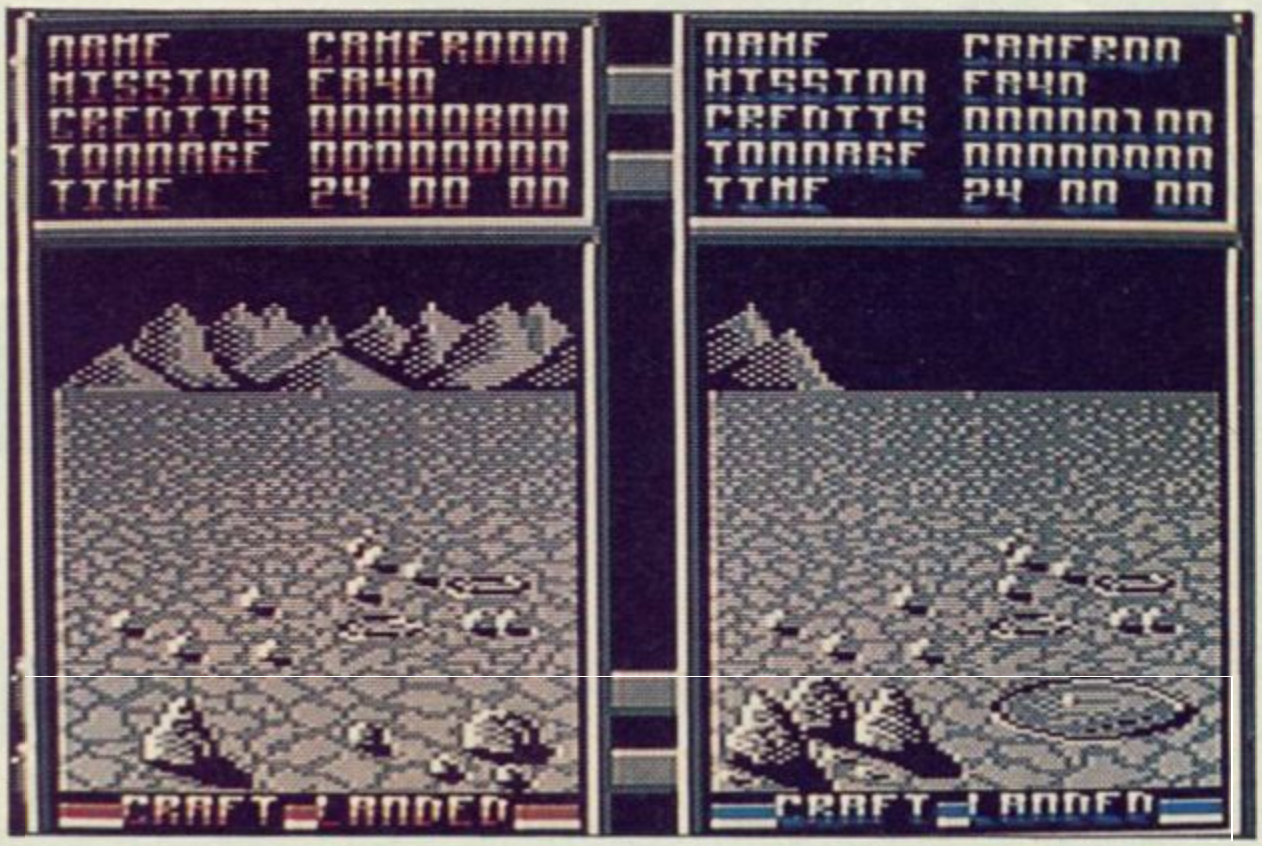
The MRUs can be preprogrammed to follow set movement patterns around the asteroid – although it is recommended that air-skimming surveyor MRUs are sent out first to scan the area for crystals and for unstable ground which proves fatal to land-roaming robots. Once located, crystals are mined and the deposits transported to the refinery. Defence robots can be sent out to destroy enemy units, while – if you have afforded it – a cloaking device MRU hides your movements from the rival corporation

Your MRU operations are affected by several dangers: unstable surfaces, hits from incoming meteorites and attacks by the opponent's armed robots. Destroyed MRUs cannot be repaired, so you are advised to keep to the set patterns patrolled by the surveyor craft and steer clear of enemy defence robots.

If the asteroid hits the moon before the quota of crystals is reached you are, at best, out of a job or worse, dead. If the quota is reached, a mission code and credit rating is given for the number of crystals recovered. The code gives the player more credits to buy MRUs in the next game, although the quota of crystals required next time is higher.

Corporation is a polished release, with atmospheric graphics, a good soundtrack at the start and suitably futuristic text detailing the game's objective and MRUs on offer.

A tremendous sense of depth is created in the split-screen display of Corporation, a game combining mapping, strategy and arcade elements – Commodore 64 screens



COMMODORE 64/128
Cassette: £9.99
Diskette: £14.99

A deceptive entertainment in that players are given freedom to choose what MRUs they require yet limited by the lack of variation in gameplay and overall inflexibility when it comes to developing personal strategies. Consequently, it has little more than short term appeal through its weak challenge and shallow strategy.

OVERALL 63%

OTHER FORMATS

Corporation **is due for release on the Spectrum: Cassette £9.99 and Amstrad CPC: Cassette £9.99 Diskette £14.99**

" . . . polished, atmospheric, yet limited by the lack of variation in gameplay."

BLOC BLOCKING UP

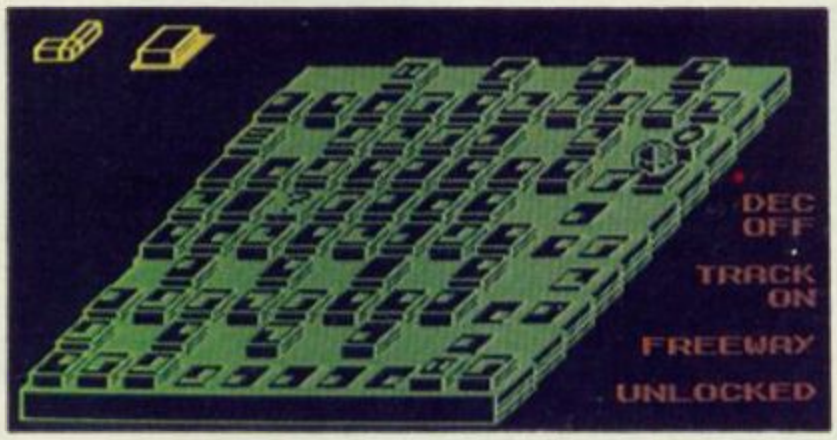
SOPHISTRY
CRL

Sophistry marks the commercial debut of **Roderick McSarquar**, a young Scottish programmer currently attending Glasgow university. It also marks the close of the **CRL/Electronic Arts** distribution contract – future **CRL** products are to be handled by **Terry Blood Distribution**.

The objective of *Sophistry* is misleadingly simple: obtain 64 keys to access the 400-plus screens (contained in 21 levels), and reach the final level to complete the game.

At the start, only 20% of the structure is open. Each screen is presented in isometric 3-D with a pattern of various types of blocks which have to be crossed in search of the keys. You move around the screen in a small pod-like vehicle which can jump in four directions, but is destroyed – losing a life – if it does not land on an upright block.

The complexity of the game comes from the various functions of these blocks and the restrictions imposed on particular screens. Blocks consist of horizontal and vertical exits, mystery features, jokers, targets and scoring blocks: points can be exchanged for keys. Restrictions include Countdown: a limited time to complete a screen, Hi-Lo: a target appears on screen, which must be reached only when in possession of a defined score and Freeway: representing a restriction-free screen. Other features are Decrement Status: reduces the value of scoring blocks by one, Tracking: makes blocks unusable unless the target square is hit, and Locking Conditions: determine if exits are locked and how they may be opened. Information on these features is displayed in the lower right of the screen. An indication of the screen exit and the type of block the pod-ship is currently on is shown top left.



Pod puzzles his next move

THE NEW SEEKERS

Whenever the pod-ship moves onto another screen, or loses a life, the options screen flashes up to allow the in-game instructions to be read, the map perused or comptrol mode accessed. The latter enables the control keys/joystick options, save or load game position, sound on/off and game restart (necessary when lives are exhausted). You may also the obtain data on the current level or use your points to gain keys, lives and terminate the seekers which pursue the pod across certain screens.

The keys to level 21 must be found before time runs out

SPECTRUM 48K
Cassette: £7.95

The blocks are all clearly identified – a testimony to excellent graphic design, unfortunately this clarity is very much missing from the instructions. At first the game seems impossibly complex, when progress is made it becomes vaguely comprehensible – until some new obstacle crops up. There are no tunes, but this is compensated for by a wide range of impressive spot FX. If you have the time and inclination to battle through, Sophistry **may prove a very rewarding game, but it won't be easy.**

OVERALL 78%

OTHER FORMATS

The possibility of a Commodore version is being appraised.

"At first impossibly complex, Sophistry **may prove rewarding . . . "**

VERSION UPDATE

WIZBALL
Ocean

Atari ST £19.95
Amiga £24.95

IT HAS been nearly a year since Ocean first unveiled **Sensible Software**'s bizarre shoot-'em-up on the Commodore 64/128. Its ST and Amiga debut is by **Peter Johnson**.

Zark has drained Wizworld of all colour, leaving it drab and monochromatic, so it is up to the Wiz, onboard Wizball, to restore colour and wipe out Zark's formations of alien beasts.

The player begins with little control over Wizball but as the game progresses and icons are collected it becomes less tricky to manoeuvre and also becomes better armed. One icon brings the Wiz's moggy Catalite into play. Only with the cat can colour be collected from droplets which form and taken to the Wizlab to be replaced in the landscape. Wizworld is divided into eight levels, with bonus levels too, although only three levels can be accessed at any one point in the game.

Wizball was very much a Commodore game; with large energetic sprites and an obvious sense of humour. Although the games' structures remains identical to their 8-bit cousin, the ST and Amiga conversions have lost the fun element (and there's nothing to choose between them in appearance or gameplay.) Detailed graphics combined with an efficient horizontal scroll work well, but the surprising let down is the sound – there's a reasonable tune but effects are minimal. Amazingly the Amiga sound FX are even lower in quality than the ST's – especially noticable in the distinct lack of background burbling. Besides these grumbles, *Wizball* remains a great game and, though tricky to master, should provide many hours of entertainment for anyone who wants something slightly different.

ATARI ST: OVERALL 87%
AMIGA: OVERALL 84%

The police not only look good but when they appear, are accompanied by manic sirens

OPEN THE BOX

PANDORA
Firebird

PSI Software Designers are a two-man team made up of **Shahid Ahmad** and **David Eastman**. The former has written games for both Activision and Firebird's Silver Range, included among the latter is the well received isometric adventure *Chimera*.)

Even in the 22nd century there is a need for scrap merchants, recovering abandoned satellites and all the rubbish which clutters up Earth's orbit. Once in a while, however, there comes an opportunity which is the stuff of an Intergalactic Salvage Operator's dreams – in this case the return of the Pandora.

The Pandora set out on its voyage at the latter end of the twentieth century – almost two hundred years ago. It was named after its seventh generation onboard computer PANDORA – designed to help run the massive ship and its huge, vegetation-filled domes. The objective of the voyage was to find alien life, but even before the ship's launch critics questioned the use of Bio-Rhythmic Stabilisers – fearing they might affect the advanced computer.

Now the Pandora has been found heading back to Earth, unresponsive to all communications. You won the contract to explore this museum piece and salvage any alien artifacts. Once aboard the Pandora, however, you soon find that the main computer does not take a liberal attitude to people without an ID card. It is also clear that many of the crew remain alive, though some are no longer sane. Survival, let alone profits, will not come easily.

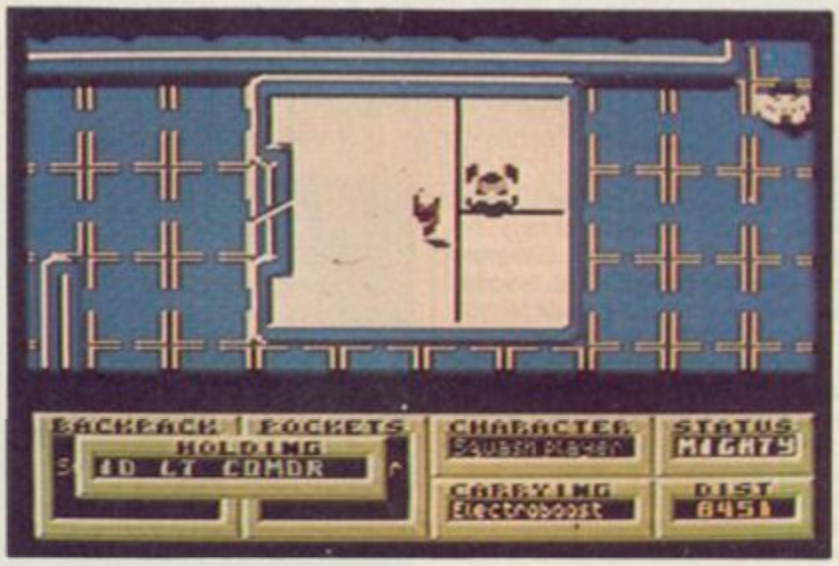
BACKPACK LIGHTNING STRIKE

The view of the game is an overhead one, with an instrument panel on the lower third of the screen. The left half of the panel displays the contents of your backpack and pockets. When you find something to pick up, pressing SPACE allows objects to be transferred between hands, pockets and backpack. On the right of the panel are spaces to show the name of the nearest character, and what they hold. Additionally a life indicator displays how far Pandora is from Earth and there is a message window.

Characters encountered usually speak to you, displayed as scrolling text across the message window, informing of what they require in order to help you – such as the diabetic who needs a needle and insulin. Some characters only make threats however, such as the thief who, if he catches you, takes your essential ID card. Fights become inevitable and the characters involved disappear under 'POW!' captions while windows show your strike rate and the enemy's stamina. The strike rate is important as it has to be watched to time blows delivered. Punching before the strike bar changes colour means the blow is half power, too late though and the blow misses completely. If you hold a weapon you can inflict greater damage, but the strike rate is slowed down. Firearm weapons are best used from a distance – at close-range they merely serve as clubs.

Completing the game requires a lot more than judicious fire button pressing, however. Watching what the crew say and finding the things that they want is essential if the ship's mystery is ever to be uncovered. Computer terminals scattered throughout the ship can offer clues, though getting at them often requires the correct ID be held.

Pandora is very much an arcade/adventure – complete with the frustrating lack of a save-game function – though perhaps with more emphasis on the latter element.



Salvaging a space ship with the crew still on board is bound to cause problems

COMMODORE 64/128
Cassette: £9.95
Diskette: £12.95

Graphically the C64 version is highly derivative, with the ship closely resembling the Paradroid **look. Nevertheless character detail and furniture marks an advance of sorts, while the underlying game is very different. For an arcade/adventure** Pandora **works surprisingly well, with a little mapping to note down the objects, and character demands, its possible to make headway relatively easily. An enjoyable and successfully implemented arcade/adventure that deserves serious consideration.**

OVERALL 81%

OTHER FORMATS

Conversions are planned for the Atari ST and Amiga, both retailing at £19.95 and due out in May.

"Pandora **is a very enjoyable and successfully implemented arcade/adventure . . . "**

NEW LOW PRICE ST!

ST PRICE INCREASE

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PRESS ANY KEY

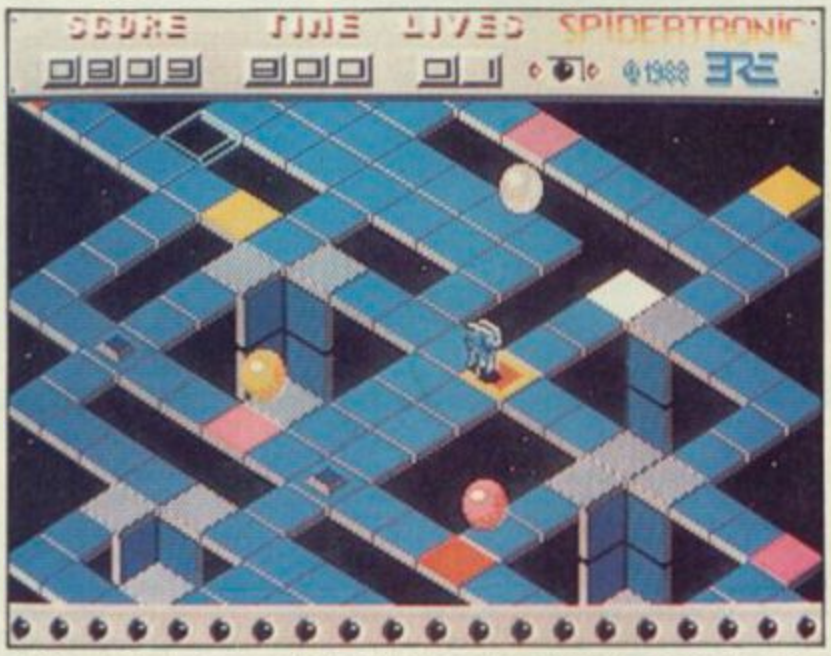
NIGHT ON THE TILES

SPIDERTRONIC
Infogrames

This 16-bit isometric arcade game is the product of two highly experienced French programmers, **François Garofalo** and **Fabrice Decroix**, who can claim involvement in no less that 11 games between them. Neither, however, seems to like writing music; this was created separately by **Ulrich**.

The central character is a mechanical spider whose electronic web has come under seige from a variety of weird aliens. The aliens have broken passageways between the web levels – your mission is to rebuild these links.

Each level is presented in isometric 3-D using Escheresque visual tricks so that one platform can simultaneously be on the same level as another and yet below too. All ten levels are made up of several screens with smooth vertical scrolling as the spider explores its web. Rebuilding the web's links involves picking up a series of different coloured tiles and placing them on the broken passageway. Tiles are picked up one at a time and must be the same colour as the light blinking at the bottom of the screen. When a tile is picked up – simply by running over it – it can be taken to the link to rebuild it. Once the necessary number of tiles have linked in, it can be crossed to access the next level, which is loaded from disk.



Nothing to fear but sphere itself – collecting coloured tiles to access the next level gives spidey a hectic time

SPINNER DIZZY

Trying to stop the spider completing its task are numerous bouncing balls which materialise with very little warning but can be killed with spidey's web shooter. To ensure the spider doesn't grow too cautious a time limit is imposed, but can be extended by picking up black time oblongs – which should not be confused with black paralyser tiles. Another tile is the yellow and orange Restarter which, if activated by crossing over it, is where the spider reappears after dying. Extra lives are awarded at various points totals.

The most interesting aspect of *Spidertronic*, however, is the superb game editor which allows you to build up an alternative ten levels to play – these may be saved to disk. Rather than use a WIMP system the programmers have cleverly grouped all required keys around the arrow keys, with the single exception of the space bar – needed to place the selected tile. Arrow keys move the cursor around while CLR/HOME and INSERT scroll through the tiles available. With just a little practice the editor allows creation of levels easily as intricate as those in the game.

ATARI ST
Diskette: £19.95

This bastardised descendant of the Pogo **game style would not have looked amiss on the Amstrad a few years ago. Nevertheless it's amusing enough to play, the scrolling is smooth and the digitised sound FX are unique. The best part of the game is undoubtedly the ability to design your own levels – great fun and easy to do.**

OVERALL 71%

OTHER FORMATS

An Amiga version is planned, however there is no information on price or release date at present.

" . . . the scrolling is smooth and the digitised sound FX are unique."

VERSION UPDATE

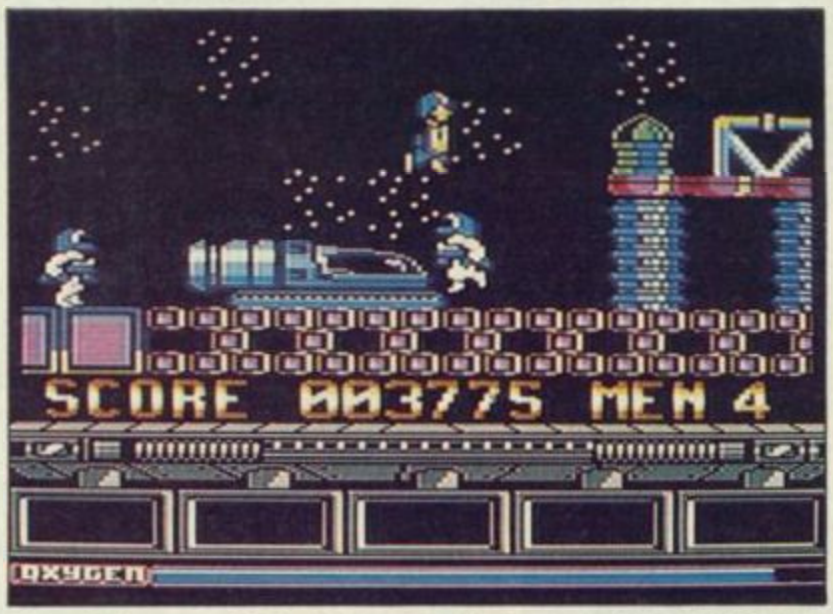
NORTH STAR
Gremlin Graphics

Commodore 64/128 £9.99
Atari ST £19.95

SENTIENT SOFTWARE were given the job of converting *North Star*, originally written by **Jon O'Brien**. Fully reviewed in TGM**004** (Spectrum 80%, Amstrad CPC 73%), it's essentially a fully-fledged platform shoot-'em-up spread over several levels scrolling right to left. With weapons and assorted extras to collect on the way, *North Star* proves a decent romp through blasting action.

The gameplay tactics are almost paradoxical – on screen movement is fast and tough but to be successful you've got to plan a route and decide how to deal with the variety of aliens. The Commodore game is typically Gremlin: chunky metallic graphics which work well and a bouncy soundtrack (written – as are the FX – by **Benn Daglish**.) It's virtually identical to its Z80 counterparts, and is effective on that score, but as a Commodore game it isn't quite up to the mark of the other 8-bit versions.

On the ST, the garish, bright colours in both the small playing area and the border make it difficult to see clearly what's happening on screen – characters often get lost as there is no distinction between background and animated characters. And definition is further complicated by slightly off-smooth scrolling. The ST conversion offers nothing over the others, rendering it an expensive buy for such a simple game.



Collecting bonus pods is the only way to survive long enough to annihilate the alien hordes

Another level complete in the battle against the space station aliens

COMMODORE 64/128: OVERALL 71%
ATARI ST: OVERALL 62%

ON THE PISTE AGAIN

EDDIE EDWARDS: SUPER SKI

Loriciels

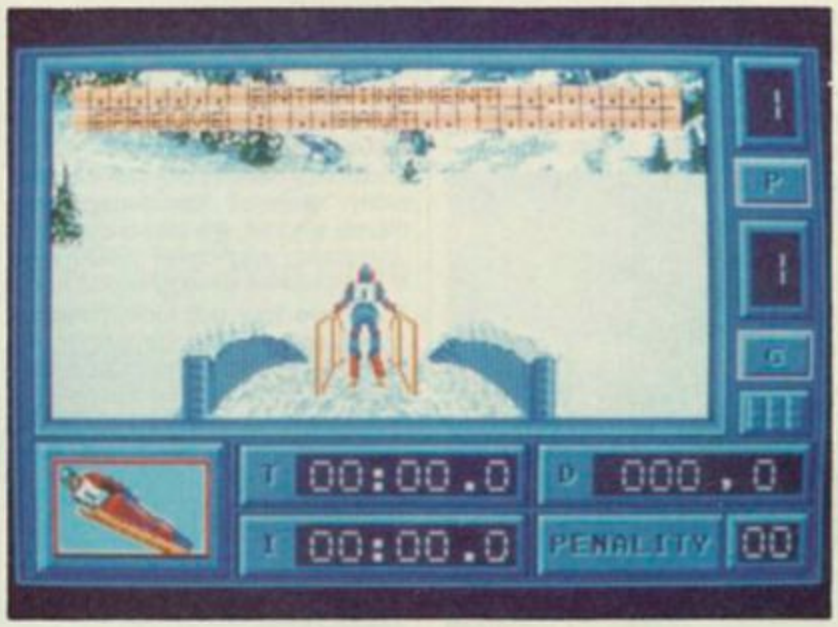
That grand English tradition of favouring the underdog; who dares may win but he who comes last every time really scoops the money – at least that was the case with Eddie 'the eagle' Edwards. After numerous public appearances, the man who came last in the Winter Olympics Ski Jump, has a computer game dedicated to his efforts – the only difference being the player's objective . . . to win. We previewed a screenshot last month under the title of *Championship Ski*.

Eddie Edwards's Super Ski is a compilation of skiing events- slalom downhill, giant slalom and ski jump. All events can be played either at a practice level or in a competitive event with scores and placings displayed at completion.

The animation is breathtakingly fast, Loriciels have managed to capture the effect of speedy movement without resorting to jumpy frame updates. The track and surrounding countryside fly smoothly past at an incredible pace. All four events make use of the high speed technique – none more so than the downhill . . .

The downhill – like both slalom events – is played on one of three courses, ranging from easy to difficult – the more difficult the course chosen, the more twists, turns, and rises there are to cope with. Staying on course and getting to the end as quickly as possible scores points – penalties are incurred for falling over, missing the checkpoint barriers or straying off course.

The graphics and sound may not match the ST version but the incredible speed is present – PC screen



The realistic backdrops move incredibly fast as Eddy struggles to remain on his skis – ST screen

COURSE OF ACTION

The slalom and giant slalom both work similarly although the latter consists of a longer course. Speed and a fast time are again the essence of the race, with time penalties incurred for missing any of the frequently placed marker poles (contact with them knocks you off course.) How you coordinate Eddie's speed and direction is all-important for a successful run.

In the ski jump event the poise and angle of elevation is important. Acceleration is built up on the ramp and when in the air Eddie must change position to suit the beginning, middle and end sections of the jump. A safe landing is needed to qualify and score – the longer the jump the more points awarded.

Slapping on the Eddie Edwards endorsement may give some people cause to think *Super Ski* is a tongue-in-cheek effort; this is not the case.. On all three machines reviewed here, the graphics and horizon effect are excellent, with detail giving a good, frosty impression. All four events have been exceedingly well programmed, and should provide you with considerable lasting addictiveness.

ATARI ST
Diskette: £19.99

Fine use of the machine's capability to handle fast moving, colourful graphics. All options are selected from graphic screens with well drawn backdrops. Sound is minimal – just the noise of the skis – but effective. Probably the best simulation on this theme, and definitely the one to play if you're into winter sports.

OVERALL 79%

AMSTRAD CPC
Cassette: £9.99
Diskette: £14.99

Not renowned for fast-moving graphics, Super Ski **changes that with this extremely playable, fast simulation. Graphics are similar to the ST's, though more blocky and you do lose the graphic option screens – they are displayed in text form. The game however, translates marvellously.**

OVERALL 77%

PC
Diskette: £24.99

If you can bear the cyan/purple/white colour scheme of the PC (there is no EGA colour option) Eddie Edwards's Super Ski **is fine. Remarkably similar to the Amstrad version in terms of speed and structure but not a hint of sound.**

OVERALL 70%

" . . . should provide considerable lasting addictiveness."

WHERE THERE'S NYUK THERE'S BRASS

THE THREE STOOGES

Cinemaware/Mirrorsoft

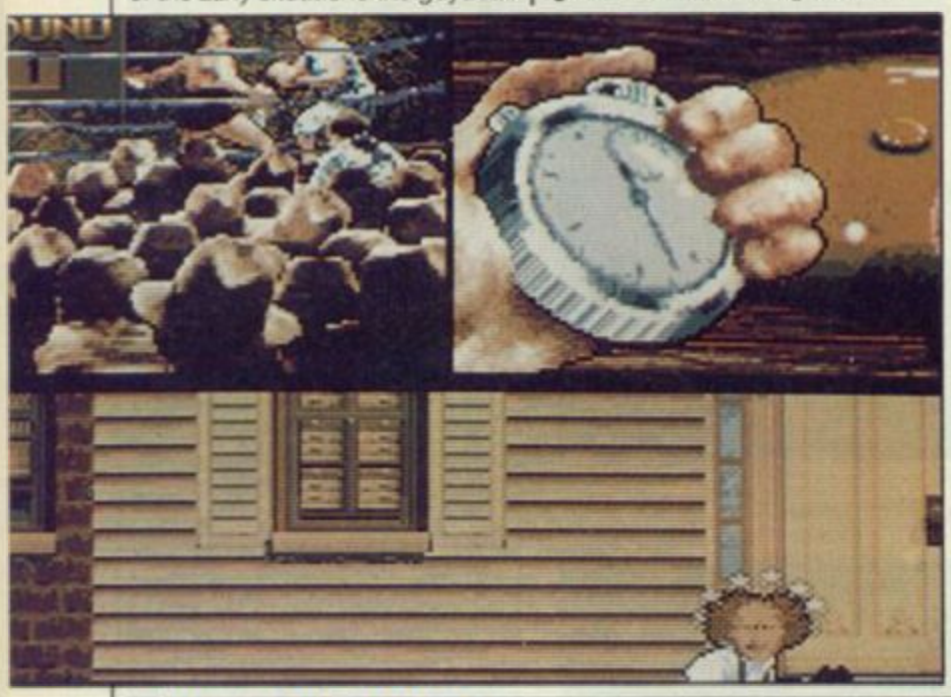
Although Cinemaware are already planning their future in CD-ROM technology they are not yet abandoning interactive movie software. *The Three Stooges* is the latest in the series and comes from the collective skills of **Incredible Technologies**. The Stooges have a much larger cult following in America than here, but thanks to continuing repeats of their films on BBC 2, the new generation Brits can hardly be ignorant of these masters of slapstick comedy.

The animated action sequences in *The Three Stooges* echo the robust relationship between the comedy trio's stars – Moe, Curly and Larry, and incorporate many of the zany situations the guys act out in their films. It begins with – and is enclosed by – a sob story concerning Ma's Orphanage, which Mr Fleecem is threatening to close down. Fleecem is a typically wicked individual, the sort who enjoys tying young ladies to railway tracks . . . and leaving them there.

The boys offer their services. Helping out necessitates finding $5,000 to buy the Orphanage, plus a little extra to carry out repairs. If this is accomplished, Ma is willing to let her three daughters marry the boys . . . for a little more money.

Only 30 days is allowed to raise the dough, done by performing the various tasks that make up the sub-games. Each job represents one day of the adventure, and every day starts at the activities' selection screen. Moe's hand moves along the row of six activity icons, and pressing fire stops it at the desired square. However, included in the icons are mousetraps – should Moe accidently choose one, he loses a pinky; when all four fingers and thumb are lost, the game ends.

Curly's future is looking Rocky as Larry races to get tuned in to Pop goes the weasel – Amiga screen



POT LUCK

There are four pot luck icons to select and five arcade games to play (see panel for details) – the aim of each being to raise as much money as possible. Pot luck items are: Chance – where anything can happen, Trivia – correct answers to Stooge trivia reaps a reward, Money – gives the guys free money or a reward for finding it and finally the Evil Banker – forces interest payments from you or takes away playing time.

At the end of the 30-day time limit the Stooges are whisked off to Ma's Orphanage to show off their achievements. The game ends here regardless of how much money has been earned, although the ladies' appreciation varies according to how good your performance has been.

The Three Stooges is crammed full of animated graphics, sound and sampled speech – judging it from these points the game looks great – a masterpiece in FX and presentation. However, player involvement is not as extensive as it initially appears to be. A novelty to watch and listen to at first, boredom soon sets in once the sequences have been enjoyed a few times. You are required to compete in the same sub-games several times to earn sufficient money, and again the boredom factor soars. As with most recent 16-bit games the visual and sonic appeal is great, but gameplay is disappointingly shallow.

STOOGE SUB-GAMES

BOXING

Curly enters a prizefight, but predictably wimps out once in the ring. The usual method of turning him wild is for Larry to play *Pop Goes The Weasel* on his violin, but Larry's Stradivarius is broken. Larry must rush off to the radio shop and find a set playing the tune and return with it before round six has finished. You control Larry as he belts along a scrolling street filled with hazards. This event features some wonderful sound FX as Larry collides with objects, but addiction is lacking.

SLAPPING

Moe knocks sense into his hapless sidekicks by slapping and tweaking parts of their anatomies. You control his actions via a host of joystick moves, all designed to inflict pain on Larry and Curly – illustrated by great screams and yowls sampled directly from the films. Though the game doesn't reap any cash rewards it acts as a method of slowing down the hand on the selection screen, which otherwise gradually speeds up as the game progresses.

PIE-FIGHTING WAITERS

A luxurious dining hall becomes slapstick nightmare as the Stooges – employed as waiters – start throwing custard pies. The more pie-eyed the guests become, the more cash the trio earn. However, when the guests start throwing pies back, the guys have to duck – five hits ends it. A great bit of fun, but difficult to control due to its manic action.

HOSPITAL DOCTORS

Based on the film *Men In Black*, it is the funniest sub-game in the package. The Stooges, equipped with midget race-cars, chase through 20 vertically scrolling hospital corridors trying not to send patients flying. In the Amiga game they have to pick up medical supplies which have been dropped en route. The point is to arrive in the operating theatre before the time runs out – the more time left the more money is earned. Unfortunately it is infinitely more fun colliding with patients than playing the game properly.

CRACKER EATING CONTEST

Inspired by the film *Dutiful But Dumb*, Curly tries eating a bowl of oyster stew liberally sprinkled with crackers. His goal is to eat the crackers with his spoon before the rather over-protective (and less than dead) oysters grab them. The more crackers Curly gobbles down the more cash he gets. Tricky to control, it incorporates some graphics and sonics which border on the amazing.

AMIGA

Diskette: £29.99

Heavily reliant on its graphics, it comes as no surprise that this version is by far the most impressive; the three characters really come to life with detailed, precise, animation that perfectly catches the Stooges' individual idiosyncrasies. Sound mirrors the quality of the graphics – ranging from sampled speech to atmospheric music. Unfortunately the price for the high presentation is a lack of gameplay and continuous disk swapping. The Three Stooges has immediate appeal, like a movie, there's much to see, but little to do.

OVERALL 78%

COMMODORE 64/128

Diskette: £14.99

This version compares favourably with the Amiga – the graphics are less detailed and don't have the same comic air about them, but they work well enough. There are no real differences in gameplay apart from the hospital sub-game which on the 8-bit version is simply a race. As with the Amiga game, Commodore users are going to have to put up with constant disk changes – the adventure takes up two, using three sides in all. Music and the speech are good, the latter again being sampled.

OVERALL 70%

" . . . a masterpiece in FX and presentation, but gameplay is disappointingly shallow."

ELECTRONICALLY INVISIBLE

STEALTH MISSION

subLOGIC

Following in the jet stream of MicroProse's *Project: Stealth Fighter* comes the F-19 simulation from the Illinois-based software company subLOGIC. With the advent of yet another simulation based on this virtually radar-invisible Lockheed plane, it can only be a matter of time before the F-19 is made public so we can all judge whether the simulations are accurate.

At the start, you may opt to load in *real world* data from extra scenery disks or select one of the eight missions within the program. These are split into four groups of two (Mountain Conflict, Battle at Sea, Mountain Ruins and Marathon Bomber Run), each consisting of an easy and advanced level.

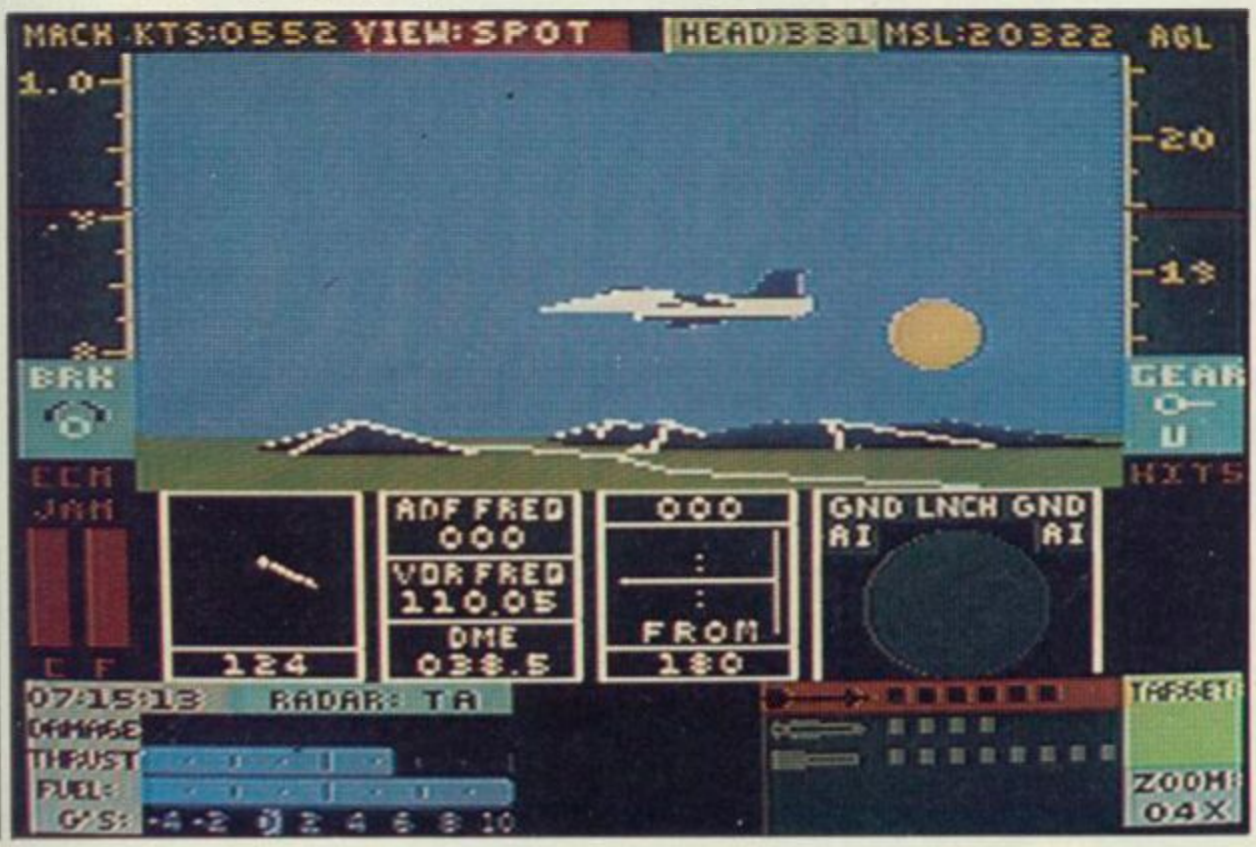
Then there are further skill levels offered, a practice session, armament selections and the choice of flying the F-19 Stealth aircraft, the Grumman X-29 experimental plane (with the unique Forward Swept Wings) or the F-14 Tomcat US Navy fighter.

Eight types of missile and bomb can be loaded onto the plane (the F-19 having two extra Stealth missiles), and once armed, the mission begins.

The simulation provides options for 16 viewpoints, including control tower, missile and spotter plane views complete with varying degrees of magnification. Chaff, flares and an ECM jammer may be activated, extensive use of navigational aids made and, if the going gets tough, you can eject. The cockpit is up to the usual subLOGIC standards, crammed full of everything the armchair pilot could want.

The Gruman X-29 patrols the skies – wings swept forward to the future

Viewed from the spotter plane, the jet-fighter cruises towards its target



SIMULATION STIMULATION

The simulated world is comprised of valleys, hills, runways (civilian and military), enemy territory protected by SAM sites, Mig-21 and Mig-23 jets and, depending on the mission selected, missile frigates out at sea. On longer missions, an orbiting KC-10 provides refuelling capacity, and pilots not adept at safely returning to terra firma, can use an automatic landing system.

Stealth Mission will undoubtedly compete with MicroProse's *Project: Stealth Fighter*. In terms of realism and faithful reproduction of flight, *Stealth Mission* is the better; as a result, unfortunately, the game behind it has been sacrificed to the altar of high simulation accuracy.

A cockpit-eye view of ultra low-level flight

There is no real incentive to complete each mission, in *Project: Stealth Fighter* the rewards were medals and promotion. The fact that any of the eight missions can be selected from the start is counter-productive toward generating any long term appeal and limits the game considerably. Highly accurate, *Stealth Mission* is undoubtedly aimed at hard-core simulation fans; those seeking a game behind the simulation, might find *Project: Stealth Fighter* the better bet.

COMMODORE 64/128
Diskette: £19.95

subLOGIC could have opted for wireframe graphics , but instead took the bull by the horns and used solid 3-D. This potentially disastrous move has paid off; the program maintains an adequate speed while handling the graphics well – although in places the jumps in movement are discouragingly large, making it difficult to fly the plane with skill.

OVERALL 69%

"Highly accurate, Stealth Mission is aimed at hard-core simulation fans . . ."

A REVIEW IN DEPTH

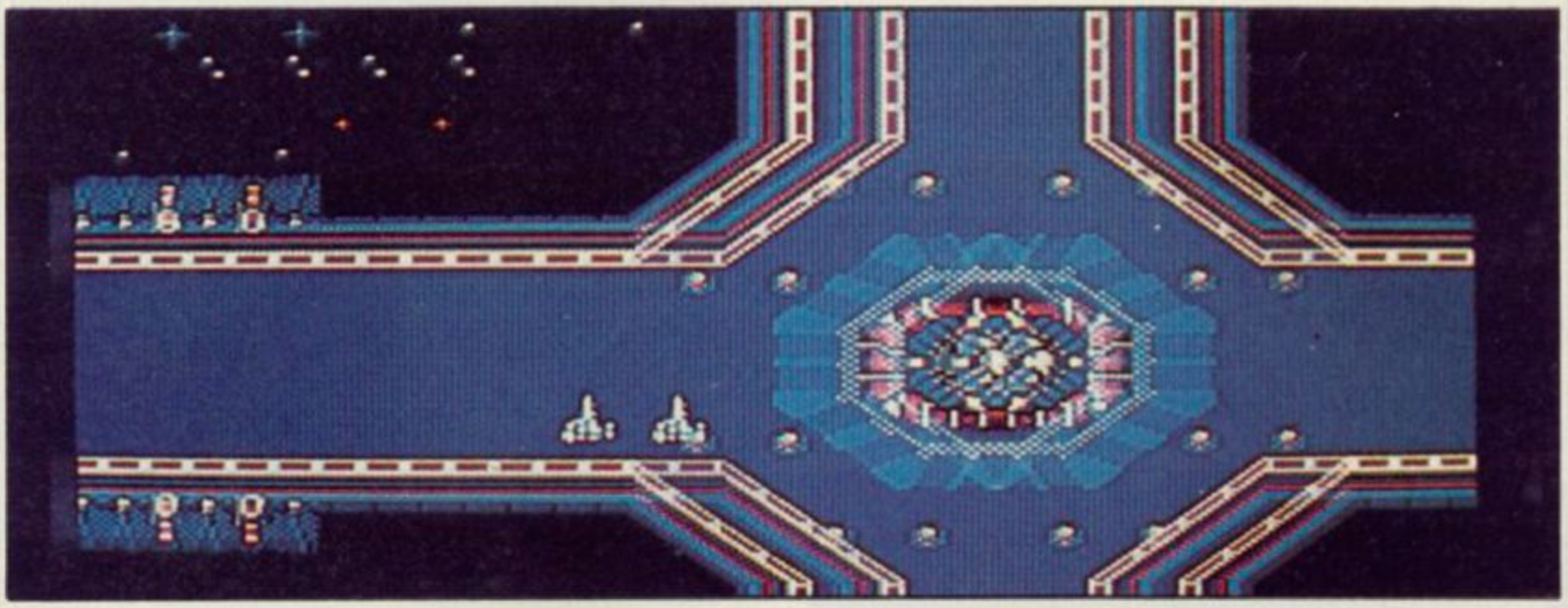
BLADE EAGLE
Sega

The Sega 3-D glasses have proved to be an expensive white elephant, with only two games to date utilising the effect (only one if you count the fact that *Zaxxon 3D* had a secret 2-D option). Nevertheless, Sega continue their spectacle support with the release of *Blade Eagle* and, in the near future, a 3-D version of the classic *Space Harrier*. When questioned about a price for *Blade Eagle* Sega told THE GAMES MACHINE that no figure had been decided on; as soon as we know, we shall let you know.

unleashing plasma bolts, mutant creatures move up and down in altitude and gun emplacements on each level do their utmost to terminate your mission. Once past the first line of defence on each level, alien mother ships appear, firing plasma bolts and rockets. Rewards for taking them out can be anything from extra speed, lasers or double cannon to a drone ship firing and moving in unison with your own. The drone also serves as a replacement if Blade Eagle is destroyed.

Sega have taken a brave step in incorporating 3-D into an unoriginal game. The backdrop of deep space is a bad choice for creating an illusion of depth, though; it only begins to work (with limited success) when the ship flies down over the planet surface and towers loom into view. Owners of the 3-D glasses are hardly spoilt for choice when it comes to choosing games, so any new release which utilises the peripheral is more than welcome, and that's why *Blade Eagle* should find favour with Sega shoot-'em-up addicts.

Wearing the sega 3-D glasses gives the game depth of field . . . but not necessarily depth of play



Conflict arises once again in deep space. This time the robot defence forces in the fortresses on Triton, Proxima and the floating stronghold of Mira have gone berserk and revolted. At the same time, sensing that the defences have collapsed, an alien invasion fleet is attacking the fortresses making it doubly dangerous for any craft entering the region. Undaunted by these formidable threats, the fighter Blade Eagle sets off to bring peace to the galaxy through the use of maximum force.

The scene is set for what is a straightforward shoot-'em-up viewed from above and behind, but employing the 3-D glasses to create depth. The ship can, at the press of a button, fly 'into' or 'out of' the screen, its shape shrinking or growing depending on altitude. This is not a novel extra but a necessity, as a lot of the aliens attack at different heights, forcing the player to use 3-D to judge their altitude before diving or climbing to intercept. To make matters worse, alien bullets also use the effect, either flying towards the Blade Eagle at a set or alternating height.

Like many other shoot-'em-ups, aliens swirl around the screen

SEGA Price to be announced

Unplayable without the special Sega 3-D glasses peripheral (see screenshot!). The illusion isn't perfect, ghost images appear from time to time and there is very little to distinguish between low and high-flying bullets, making survival difficult. However, the graphics manage to be varied in colour even through the glasses darkly.

OVERALL 58%

"Owners of the 3-D glasses are hardly spoilt for choice . . . that's why *Blade Eagle* should find favour."

VERSION UPDATE

STRIKE FORCE HARRIER
Mirrorsoft

IBM PC £29.99

AS with the Amiga version, gameplay remains the same as back in 1986, when it was released on 8-bit formats. The simulation begins with the Harrier at one of its four bases and enemy tanks close at hand. Once the tanks have been destroyed the Harrier can move on to land at an adjacent area and move bases forward. The objective of the game is to destroy the enemy HQ at the opposite end of the 512-square grid, but since the destruction of your own bases ends the game, care must be taken to move them forward so that they're rarely too far from the Harrier.

There are three skill levels and two practice options, as with the Amiga the game can be saved, but the PC version has the added bonus of allowing players to produce their own demos. Conveniently the game comes on three 5.25" disks and two 3.5"

Unrealistic tanks harass the jet in this speedy but shallow version the now dated game

disks, so either format is catered for – there are even instructions for hard disk installation. The program also includes monochrome, EGA and CGA versions which load automatically.

It works well enough, with an excellent missile-launching sequence, but lacks the graphic splendour of the Amiga. Sound consists of the familiar PC squeaks and whirrs and helps to kill the illusion of flying a jump jet. Simulator fans in particular are advised to check out Mirrorsoft's far superior *Falcon*.

IBM PC: OVERALL 62%

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VERSION UPDATE

GOTHIK
Firebird

Spectrum 48K Cassette: £7.95
Commodore 64/128 Cassette: £9.95, Diskette: £12.95

THE quest to reconstruct the dismembered Grand Wizard Hasrinaxx (reviewed TGM**006**, Amstrad CPC 57%) continues on the Commodore and Spectrum.

Gameplay closely resembles the basic *Gauntlet/Druid* style, with an overhead view of the maze being explored while enemy creatures attack. Despite such appearances, however, and the choice of female Olga or male Olaf characters, *Gothik* is purely a one-player game. This might seem a disadvantage with four dark towers to search, each containing seven floors and numerous monsters, but your character can be well-equipped to survive it all. There are three types of weapon, five spells and 32 mostly helpful magical potions to help in the quest. Selection of weapons and spells is via a status screen which also shows health and magical power.

Olaf strives to find the six pieces of Wizard Argoth – Commodore 64 screen

The Catacombs of Kaza are no safe place for a budding warrior – Spectrum screen

The Spectrum game has clear, reasonable – if virtually monochromatic – graphics and good tunes. On the Commodore, since the (very smooth) scrolling only comes into operation when your character is near the screen's edge, it's all-too easy to run into enemies. With bland graphics and average sound – even the speech is nothing special – it is marginally inferior to the Spectrum version.

SPECTRUM 48K: OVERALL 56%
COMMODORE 64/128: OVERALL 52%

VERSION UPDATE

IKARI WARRIORS
Elite Systems

Atari ST: £14.99
PC: £19.99

INTERESTINGLY the PC game has not been programmed by Elite but is an existing American product by **Data East USA**, which has been licensed for UK production. While still quite clearly *Ikari Warriors*, it is markedly different in terms of layout (see below). The ST version, by contrast, is probably the closest conversion to the original SNK coin-op yet made.

To take the negative side first, the ST screen is a little on the small side, as are the graphics, and the action can become sluggish when a lot is happening. Nevertheless none of these factors really spoil an otherwise faithful coin-op conversion which, particularly in two-player mode, is a lot of fun to play. The plane crash at the start perfectly sets the atmosphere, and the way the screen scrolls backwards a fraction when retreating, or returning for ammunition, is both attractive and useful. Considering the lack of skill levels, lasting appeal is debatable, but at the price this a very good game – well worthy of the license.

Prepare to met your doom at levels end

Going ape against Guerrilla forces – ST screen

On the PC the different screen layout is to help make best use of the EGA graphics – they are, in fact, impressive for the machine, with nice characterisation, smooth scrolling and expert use of colour. Combat is fast and effective, although the small play-area adds substantially to the game's difficulty. Predictably sound is poor with barely adequate effects and a terrible tune. A more important drawback, however, is the lack of a two-player option – unless a joystick card is fitted. A joystick can be used to control movement in solo mode, but firing requires two different keys for the machine gun and grenades. Another irritation is the need to access both disks once the game is over. In general the game is fairly playable, if hard, and generally makes quite good use of the machine.

ATARI ST: OVERALL 81%
IBM PC: OVERALL 53%

IN THE CROSSFIRE

CROSSWIZE
FIREBIRD

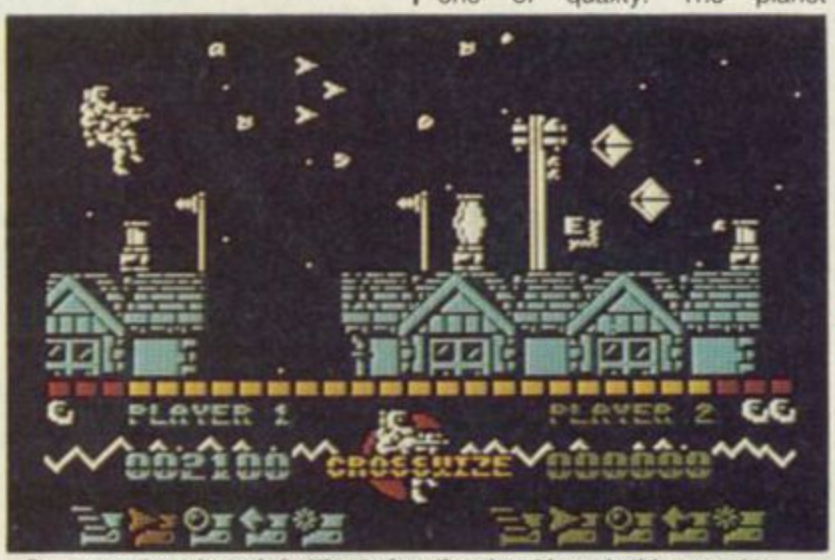
The sequel to *Sidewize*, *Crosswize* follows in the tradition of the *Nemesis* games as another vertically scrolling, all action shoot-'em-up. Programmed by **Steve Wetherill** with the graphics by **Colin Grunes**, part of the Odin team whose previous work includes *Heartland*, *Nodes-* and *Arc Of Yesod* as well as *Robin Of The Wood* (which added another string to their bow).

The planet Luna is under alien attack and you are charged with the task of saving its populace.

Off you go, equipped with a jet-pack, over the three horizontally-scrolling levels of planet surface. The landscape is deadly to the touch as are the aliens who move round in formation, firing missiles before leaving the screen as fast as they can. Some eject from holes while others adopt *Delta*-type formations, requiring multiple hits before exploding. A real mother of an alien awaits at the end-of-level for those skillful enough to survive long enough to meet it.

Weapon icons can be collected to give: further laser fire, bullets, spray fire, a limited shield or a smart bomb. Each weapon has finite power and when depleted, the next most powerful weapon is activated unless the relevant replenishment icon is collected. Limited energy slows you down as it drains, resulting in loss of a life when zero is reached.

Although offering nothing new over games of the *Delta* ilk, *Crosswize* is an 8-bit arcade blaster of formidable proportions, consisting of intense action and a high level of difficulty. graphics are first class, the planet landscapes are varied and full of detail – if a little bland – and the overall air is one of quality. The planet landscapes take up a lot of the screen, which restricts play, and coupled with the incredible speed and minimal warning with which aliens appear, makes *Crosswize* a difficult game. Progress through practice is possible, but with virtually no margin for error it can get frustrating very quickly – suitable for masochists or ultra-good arcade game players only.



Our space-hero bravely battles to free the planet Luna in this sequel to **Sidewize**

SPECTRUM 48/128
Cassette: £7.95

Each level has to be loaded separately, though the time taken is negligible. The 48K restriction results in very limited sound, but astonishingly there's no improvement for 128K owners – and it's still multiload. No other formats are planned.

OVERALL 74%

" . . . an 8-bit arcade blaster of formidable proportions "

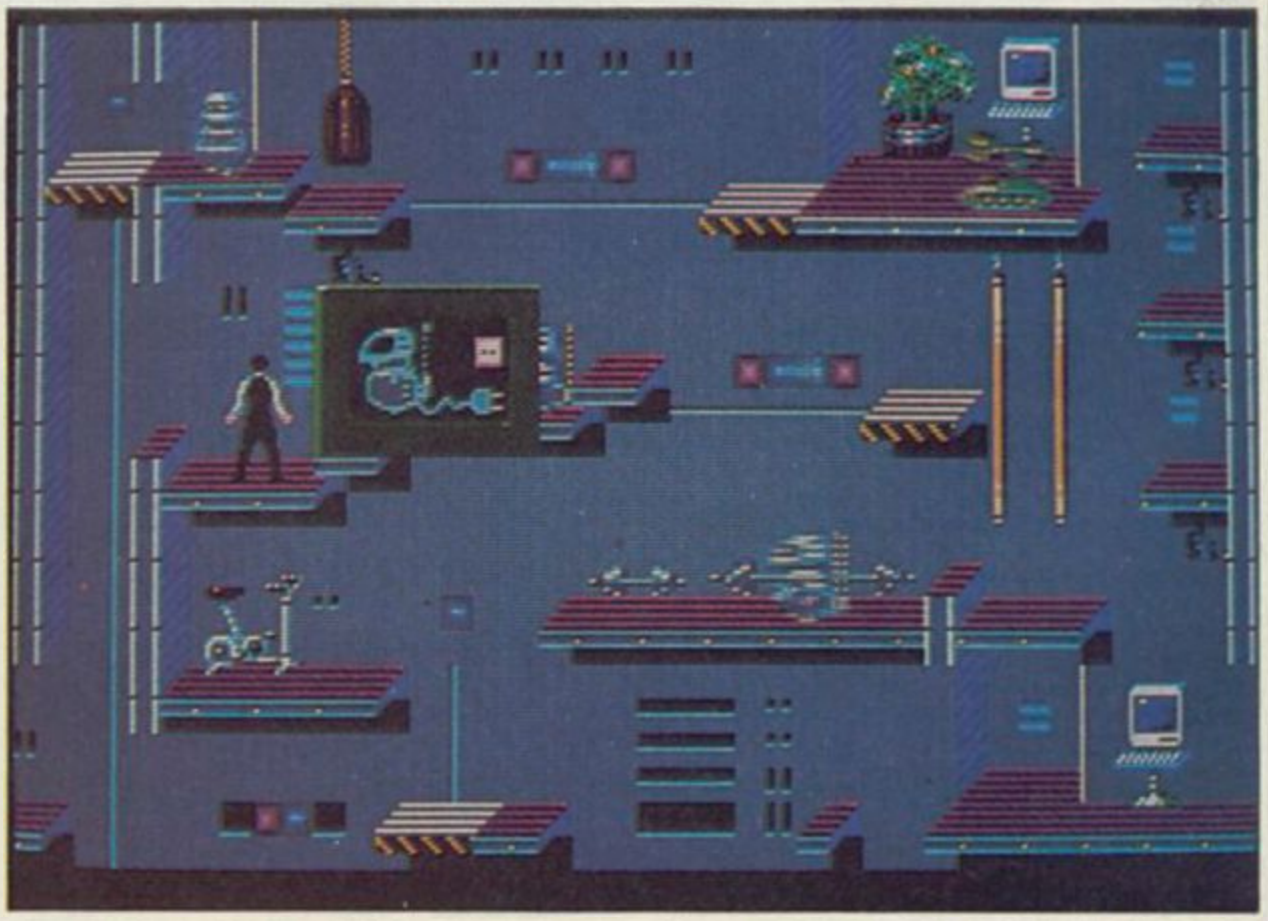
VERSION UPDATE

IMPOSSIBLE MISSION II
Epyx

Atari ST £19.99

ELVIN ATOMBENDER's plan for revenge following the outcome of the original *Impossible Mission* was reviewed in TGM**006** (Commodore 64/128 86%). Despite its potential, *Impossible Mission II* looks like a straightforward conversion from the C64. The graphics are clearer, more detailed and make good use of colour, but on the whole the game is a direct translation – right down to the scream when Agent 4125 falls. *Impossible Mission II* has plenty of challenge and, in translation, has kept the addictive qualities of the original game making it an excellent product.

ATARI ST: OVERALL 85%



MERLIN STILL CASTS A SPELL

SPITFIRE 40
Mirrorsoft

Another of those releases that should be a version update, but whose history puts it so far back that it needs a full review, is *Spitfire 40* which made its debut on the Commodore 64 back in 1985, was converted for the Spectrum and Amstrad to some acclaim, and allowed a graceful retirement. In 1988 it heard the call of its software house and was scrambled again for 16-bit release on the Atari ST. Management/graphics are by **H & H Software** and coding by **Eigen Software** – the same team who converted *Strike Force Harrier* to the Amiga.

The Supermarine Spitfire powered by the fabulous Merlin engine, is most famous for its role during the Battle Of Britain when it served as an interceptor, miraculously holding back the much greater numbers of the Luftwaffe which had intended to precede a German invasion. Unsurprisingly this conflict, probably the most famous air combat ever, is the subject of Mirrorsoft's game.

You are presented with three options: game, simulation or demo. If the game option is selected you may further choose an opponent – fighter or bomber – and are placed behind the first enemy aircraft to begin combat. A high score table records the best scores of the day.

The bulk of the game is accessed by selecting the simulation option. This displays a log book with places for six different pilots, five are preset but the sixth can be given a name of your choice so that progress may be recorded from the lowest rank. As in *Gunship*, the successful completion of a mission awards points toward promotions, which may be saved to disk. Practice mode gets you used to flying the Spitfire – and landing it safely.

Once sufficiently experienced, combat may be selected. This option gives a mission briefing detailing the number of enemy aircraft, their distance away, compass bearing and height. When these have been noted, pressing a key puts you in the aircraft on the runway and ready to scramble.

CARPETED CHANNEL

The most useful flying view is through the cockpit with gunsight and rearview mirror to help in combat. To check fuel, compass heading and numerous other dials, however, you need to look down at the instrument panel which is either brought instantly onto the screen by pressing SPACE, or gradually by using the cursor keys. This screen is vital when preparing for landings.

16-bit 'improvements' such as patterned fields and various ground features – barns and haystacks – slow the game down to a such a pace that they are more of a hindrance – except during takeoffs and landings when time to think is more important than graphic speed. Once in the air the enemy aircraft – never more than one in combat at the same time – are usually so close to the Spitfire's base that there is rarely any need to plan interceptions.

Other flaws include the English Channel, which when viewed from the Spit is apparently covered with fields, and the unrealistically fast speed at which the map can be crossed. Landing after combat is difficult, and the lack of variety in combat makes long-term appeal questionable.

ATARI ST
Diskette: £24.99

The sound is mediocre, with the supposed guttural throb of the Merlin engine coming out more like a Philishave razor, and the Browning machine gun fire is akin to a small child blowing a raspberry. The addition of enemy bombers helps to make the game more interesting from a difficulty point of view, although the demo mode – which did not exist on the 8-bit games – does nothing to promote game content. The Spit merely takes off, shoots a few sugar-cubes at nothing in particular and lands. Despite these anomalies and the age of the concept, the overall look of Spitfire 40 **is good – the ability to write comments in the log book explaining why a mission failed or succeeded is a nice addition: The thrill of combat is present when faced with enemy aircraft and a certain satisfaction gained when members of the Luftwaffe are hit and dive out of the skies to meet their earthly demise.**

OVERALL 57%

"Despite the age of Spitfire 40**, the thrill of combat is present . . ."**

VERSION UPDATE

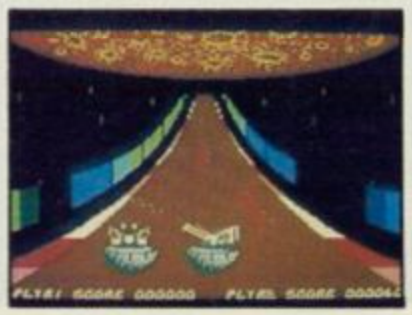
ROAD WARS
Melbourne house

Atari ST: £19.99
Commodore 64/128: Cassette: £9.99,
Diskette: £11.99

FIRSTseen in the arcades as one of Arcadia's first Amiga-based coin-ops, the game has since been converted for Amiga and Spectrum (neither reviewed in TGM) and now Atari ST and Commodore 64/128.

The game structure is simple: space roadways looped around various moons have developed malfunctions in their side panels, creating magnetic fields which destroy passing vehicles. The objective is to get rid of these rogue panels by shooting them – taking care not to destroy normal side panels. This is accomplished by a pair of battlespheres equipped with powerful lasers and shields. When activated, the shield slides over the guns to present a perfect sphere. To drop the shields and aim the lasers the joystick must be moved along the rear diagonals, starting the gun rotating either left or right. Magnetic sparks traversing the roadways can be crossed a limited number of times with the shield up.

Minor graphic differences and poorer sound make for a slightly worse game than the Amiga version – ST screen



Good looks are let down by poor gameplay – Commodore 64 screen

Red balls and Chevrons destroy the spheres if unshielded or merely the shields if they have been activated. Including a two-player option, the computer controls the second sphere in one-player mode.

Besides superior graphics and a number of extra features not available on the Commodore 64/128, the Atari ST version includes a bonus level with points awarded for pushing your 'ally' off the road. These additions, together with much smoother graphics make the game more playable than the difficult C64 version. Nevertheless the repetitiveness and simplicity of play limit the game's long-term appeal.

While neither is close to the original, the Commodore game is something of a travesty. To compensate for the lack of complexity there are far more obstacles to be coped with, as well as an exceptionally aggressive computer ally who constantly seeks to push you off the road. With sluggish controls and atrocious sound effects this is a game to be avoided.

ATARI ST: OVERALL 53%
COMMODORE 64/128: OVERALL 23%

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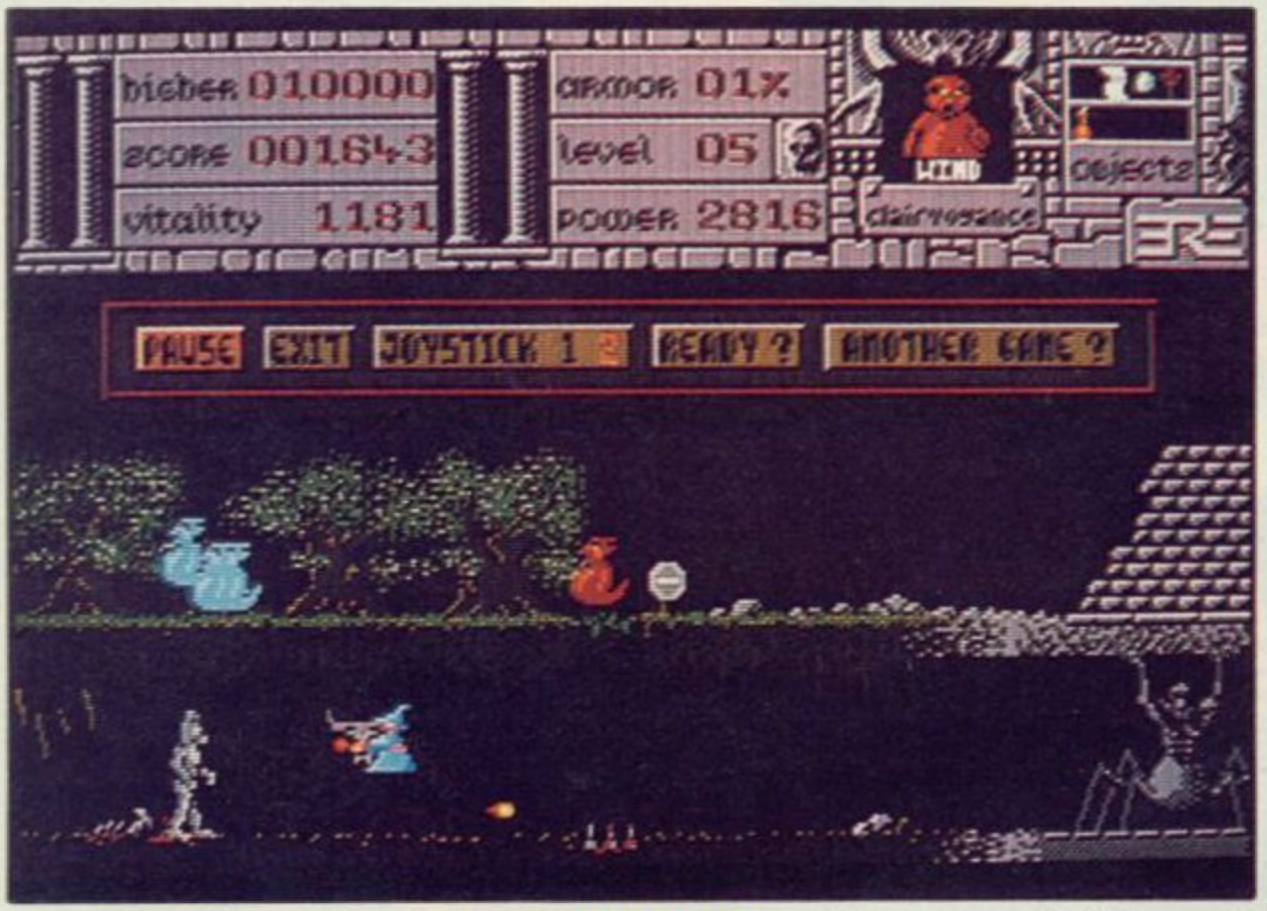
REST A SPELL

WARLOCK'S QUEST
Infogrames

The programmer of *Warlock's Quest*, **Olivier Zimmer**, is known as 'Dr Algorithmus' – an honorific that pays homage to his mathematical prowess. In his spare time he has founded a Role-Playing game from which inspiration he took the notion for *Warlock,s Quest*.

Deep in the darkest depths of earth squats the incarnation of evil itself; a creature without name, it has stolen the Karna from humankind. The Karna is an immensely valuable jewel, bestowing limitless power on whosoever possesses it. To prevent catastrophe you, a very wise and skillful warlock, have journeyed to a graveyard to begin your quest. But through misfortune the evil lord and his minions have learned of your plans and already zombies are rising from their graves to do battle. A ball of flame despatched from your magic staff may take care of the walking dead, but before the quest is completed there are far more horrific and dangerous creatures to be faced . . .



A KRAKEN GOOD GAME

The playing area of *Warlock's Quest* is surprisingly small, covering exactly half of the screen. This area is split into two levels between which you can swap by climbing ladders or using teleports. Difficult-to-spot holes can also provide a quick, if not always intentional passage into the lower level. A status panel covering the screen's top half describes the monsters you encounter. Almost every screen has a new monster, from ghosts and bats to the mysterious Kraken, in addition there are ghastly unnamed monsters on the lower levels – such as the perfectly loathesome spider demon. Complementing these enemies are some nasty tricks: magic bottles can imprison the warlock and there is an undersea tunnel complete with Indiana Jones-style traps.

Detailed tiny figures ensure that the warlocks quest is anything but easy

Hidden trapdoors allow access to upper and lower levels

Overcoming these obstacles takes a toll on vitality, which is shown on the status panel along with high score, current score, power (which diminishes with every shot), level (effectively screen number) and armour. Disposing of a number of monsters often causes an object to be deposited, these include protection scarabs which add to armour, magic books to boost power, treasure chests to improve score and vitality potions. All need to be exploited to collect the eight objects required to take you into the final confrontation with the evil one. Should you ultimately manage to complete the game, there are two more difficulty levels for your selection.

ATARI ST
Diskette: £19.95

While small, the graphics are well detailed and exceptionally diverse. The water spirits in particular are very appealing – even as they kill you. Sonically the game has a respectable fire sound effect with a few nice owl hoots creating atmosphere. Whether Warlock's Quest **has the depth to go along with its undoubted graphic charms is another matter, but generally this is an attractive release with numerous neat, if occasionally cruel touches – definitely one of the better Gallic UK releases.**

OVERALL 70%

OTHER FORMATS

An Amiga version is presently under consideration.

" . . . neat, if occasionally cruel touches – definitely one of the better Gallic releases."

VERSION UPDATE

BAD CAT
Rainbow Arts/GO!

Atari ST: £19.99

RAINBOW ARTS have tried to make a series of nonsensical events into something humorously addictive – and failed. This offering is no better than the unplayable Commdore 64/128 and Amiga games released late last year. Play takes the streetwise moggy through five unfairly difficult events: jumping fences and rolling balls in the park, tackling underground obstacles in the sewers, bowling in the pub, throwing balls around the swimming pool and running in the street chasing a ball. Graphics and sound are fine, but the action is frustrating due to the need to be pixel perfect – should a mistake be made the event has to be tackled from the very beginning. Full marks, however, for the wonderful – but eventually hair-tearing – sound FX.

The monotonous moggy races gracefully across the first level

ATARI ST: OVERALL 35%

LIPSTIK, POWER AND FAME

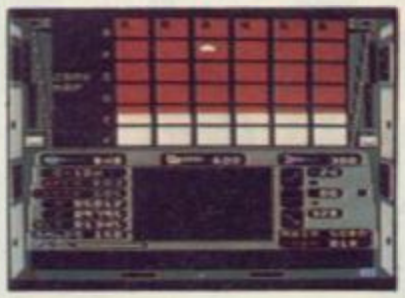
ECHELON

US GOLD

Access Software have long been one of the most impressive American games producers, *Beach Head* and *Raid Over Moscow* being key games in establishing their reputation. More recently *Leaderboard* and its sequels have shown programmers **Bruce** and **Roger Carver** to be among the most successful in the business. 50,000 copies of *Echelon* sold in America during the first two months of its release ensuring the team of another success.

There is a long future-history story to set the scene for this 3-D wireframe strategy/action game, but in effect you find yourself – a space pilot for ECHELON, the antipiracy force set up by the International Space Federation – flying a C-104 Tomahawk equipped with the most advanced in scientific and military equipment, attempting to erradicate space pirates.

Your mission is to locate the pirate base by deactivating its cloaking device through following six steps, each of which is represented by a map contained in the Tomahawk's memory banks. The maps are mostly blank, but collecting objects provides



useful information and fills in gaps. The text is in alien code, which must be broken to stand any chance of completing the mission. In addition each object contains a clue, most of which are in code, but those that are not may help break those that are. If important clues are decoded they may help solve the mystery before the maps are completed.

There are over 240 objects to be teleported aboard Tomahawk, so filling in the maps and decoding their text is a substantial task. Objects are scattered throughout a patrol zone 840km square made up of 36 areas; nine are already drawn-in – showing objects, buildings, mountains and rivers – on the old-fashioned paper map supplied in the packaging. The remaining 27 are yours to complete. In the nine mapped sectors are a firing range, floating tunnel, temple and bridge – all in wireframe 3-D, and more exotic structures are described in the manual, which provide interesting sight-seeing.

REMOTE VEHICLE

The Tomahawk manual bulges with diagrams describing *every* control. Due to the Lipstik option (see panel) the joystick fire button is freed for other things – such as thrust. Most instruments are the usual aircraft readouts – useful if ground features have been minimised to speed up graphic handling. Also useful are six different out-of-ship views to help position the Tomahawk over objects prior to their being teleported aboard.

There is also a zoom function and a Remote Piloted Vehicle (RPV) which is deployed for an exterior look at the spaceship – the Tomahawk can be controlled from the RPV's perspective if desired. In combat, the Tomahawk is equipped with three hi-tech weapons systems, and when they are exhausted, or fuel runs low, returning to base provides replenishment.

Flying through the floating tunnel, for instance, is more a test of patience and endurance than reactions. Combat is similarly sluggish even with all ground features turned off. The game is therefore very much a mapping and decoding puzzle-type variant with a tedious searching-for-objects requirement. On a computer such as the Spectrum, *Echelon* may well prove faster and more interesting.

A datalink to base helps give advice on docking or to redefine the enemy threat. If there are no enemy ships, the mission is classified as 'scientific', if there are a moderate number it is a 'patrol' and if there are a great many aliens the mission is 'military'.

An American cross between *Elite* and *Mercenary* may sound unmissable, unfortunately the implementation is disappointing. The Commodore 64 has never been adept at wireframe 3-D, and, lacking the genius of Paul Woakes, *Echelon* seems distinctly slow.

Evasive action or a quick weapons trigger is required to deal with the pirate ships – or you can simply turn them off

COMMODORE 64/128
Diskette: £14.99

At present only available on disk, a cassette version is planned. Your game position may be saved to disk at any time – useful as Echelon is likely to take a long time to complete.

OVERALL 71%

VOICE OVER

One of the more striking things about *Echelon*, is the option to use the separately sold **Lipstik** headset. Designed to control the fire option, the headset is simply a microphone which responds to loud noises. To begin with the Lipstik is an enjoyable enough gimmick but hardly a 'whole new dimension in realism'. Since overall control is not made any easier and combat is an optional extra which may be turned off to allow concentration on the adventurous side of the game, the point of the Lipstik is questionable. People wanting to buy the device are advised to contact US Gold.

OTHER FORMATS

Conversions for the PC and Amiga are due out in May. Spectrum and Amstrad versions should follow in June, and in our estimation will turn out better than on the Commodore 64/128.

" . . . more a test of patience and endurance than reactions . . . "

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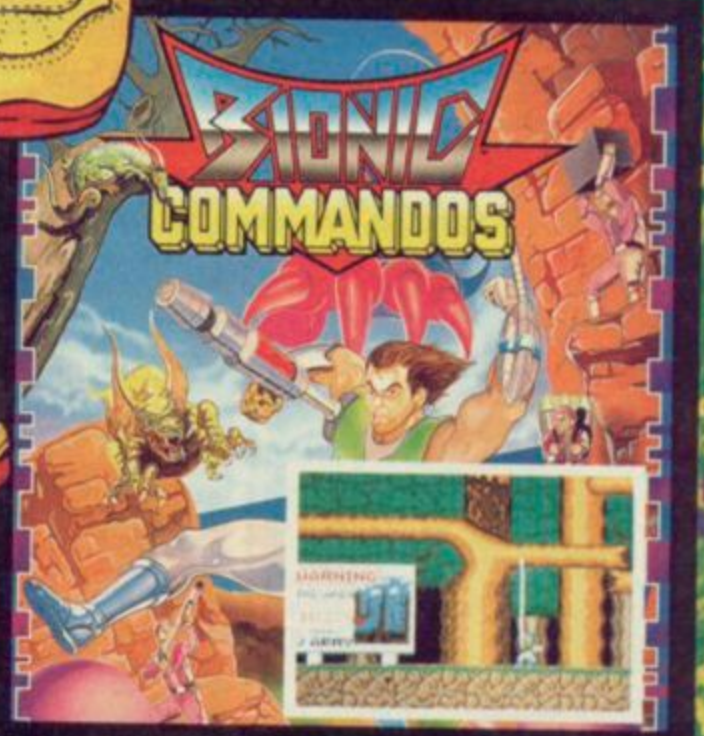

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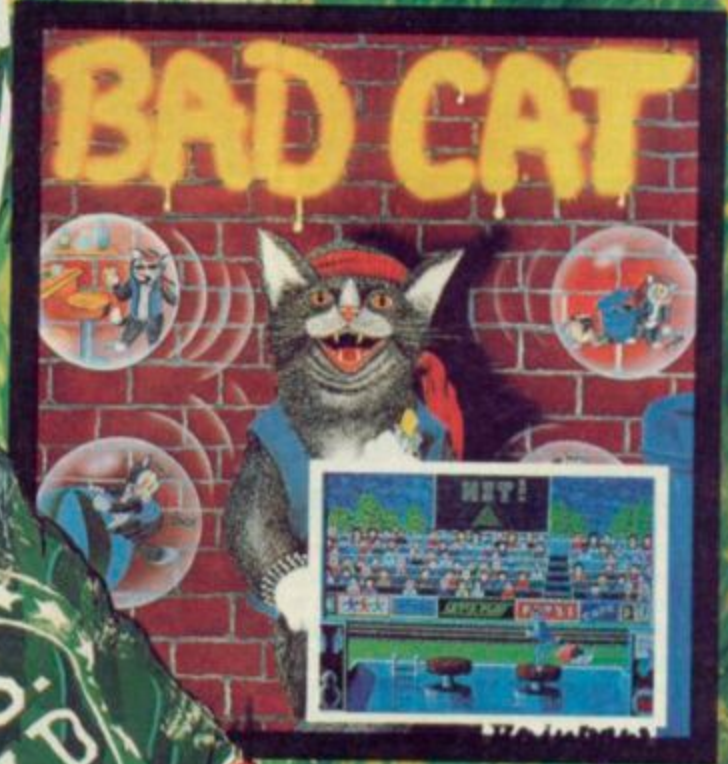

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A FLIGHT OF FANTASY

FANTASY ZONE THE MAZE

Sega

Opa Opa, the cute winged blob and star of the two previous *Fantasy Zone* games, returns in part three. He is a familiar Sega character, cropping up in many of their games (often in the secret bonus levels and cheat screens). This, the third in his own series, is a *Pac-Man* style game with a difference.

The maze consists of seven different zones, each containing three game mazes and a bonus maze. Play is very much in the *Pac-Man* vein, the objective being to collect all the dots – whilst avoiding wandering monsters – and exchange them for dollars. A second player can join in the fun as Upa Upa, another cute winged creature of mystifying gender.

The enemies in *Fantasy Zone* are omnipresent, emerging in a never-ending stream from a hole in the maze. Contact is fatal but both Upa and Opa can use the collected dollars to buy temporary weapons such as lasers, bombs and even 16-ton weights to frazzle, blow up and flatten out the foes. More powerful weapons are expensive and not made available at the start, even the cheaper multishot guns and lasers occasionally sell out. Useful extras are the Big Wings which gives whoever picks it up a much needed boost of speed, and Top Power which turns Opa or Upa into a minifireball – making them temporarily invincible and hot enough to destroy any enemies that get in their way. Enemies destroyed leave behind coins of up to £5000 in value. Other collectable items include smart bombs and extra lives (displayed as a baby Opa hatching out of an egg.)

TO COIN A MAZE

After completion of the three mazes you move through to a bonus screen. It has much the same layout as the other mazes except all the lights go out after a few seconds leaving you to fly about in the dark – speed is essential if you're to gain bonus points.

The original *Fantasy Zone* was a thoroughly enjoyable shoot-'em-up with a fun element that overcame any deficiencies the game had. *Fantasy Zone The Maze* draws its base ideas from *Pac-Man* (no bad thing as it's still a great game), it is highly addictive, although repetitive in the long term and limited in scope. *Fantasy Zone The Maze* is best as a two-player game, the team element makes it a lot more enjoyable and single-player mode gets difficult on later levels – the monsters move faster than the Opa Opa.

SEGA Price to be announced

Follows usual Fantasy Zone **style. Good-to-excellent, detailed cartoon graphics use a lot of colour against surreal backdrops. Directional control is not good using the control pad – a prime example of a game needing the Sega joystick. The tunes are typically** Fantasy Zone, offbeat, weird and fun to listen to. A good follow-up to the other games in the series and very addictive.

OVERALL 78%

" . . . a good follow-up to the other games in the Fantasy Zone **series . . . "**

VERSION UPDATE

POWER STRUGGLE

PSS

Amiga: £14.99

THE world of superpower politics is frighteningly complex at the best of times, with critical decisions being made which not only affect single nations but often the entire world. PSS's *Power Struggle* gives one or two players the chance to become the heads of states of some of the most powerful countries on this planet. In one-player mode the computer is the opponent – and either a random or default distribution of countries under each Superpower's control.

The game is played via over a map of the world, with countries controlled by the West shown green, East red and neutral white.

A status table below the map shows a particular country's military and industrial strength as well as their political allegiance.

The overall objective of each side is to gain control of as many countries as possible. A row of icons either side of the map allows the player to attack other countries, supply or enforce friendly countries, apply political influence and build armies and factories. Commands are executed by clicking with the mouse pointer on the attacking country, then clicking on the relevant icon and finally on the target country. Each turn is played against a strict time limit, after which, all orders given are executed.

Countries which taken over change to the colour of the controlling Superpower, spreading the player's political and military influence around the world. All the while the rival Superpower is also trying to further its domination – either by force or by the more subtle use of political pressure.

Power Struggle is a good introduction to strategic games and an education in the way that Superpowers work – if on a limited scale. It is easy to start taking countries but holding onto them is what provides the challenge. The game is limited in complexity and, having only six controlling icons, does not make for real in-depth play; it hasn't tried to be anything more than a comparatively simple game of strategy and tactics.

AMIGA: OVERALL 64%

SPLIT DECISION

FIRE POWER
Activision

Activision's second Microlllusions game – another in the 'One To One' series – takes us back to the fighting tank games, once so popular. Coding is by **William Ware** with design once more attributed to the improbably named **Reichart Von Wolfsheild**.

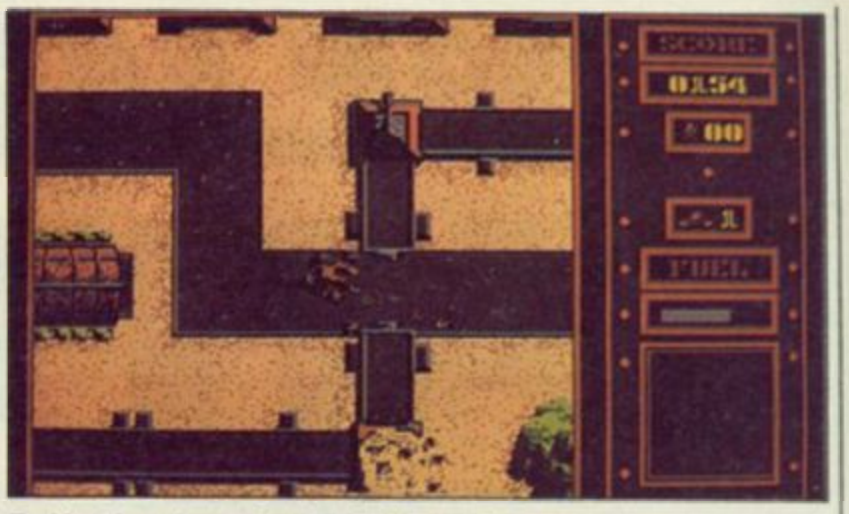
Fire Power is completely unburdened by any storyline to explain its large-scale carnage – which may be experienced by one or two players. In solo mode, there is no split-screen and the only opponents are helicopters and fortresses. Unlike the two-player game, there are limited lives which makes capturing the enemy's flag – the prime objective – extremely difficult. In two-player mode the screen is split in two, allows complete freedom of movement for each player and, should the tanks meet, they appear on both screens for combat. Lives are unlimited but the destruction of your tank, by whatever cause, adds points to your opponent's score.

WHAT'S MINE IS MINE

At the start of a game each player is given a choice of three tanks, including a Scorpion tank and a Mobile from the *UFO* series. The characteristics of these vary considerably, for example, the Mobile tank has a heavy resistance to damage, the ability to carry a lot of mines, fuel and men but is comparatively slow.

To begin with, each player is located inside his own base. Exploration of friendly territory is generally easy – just watch out for mines, the enemy tank and the occasional helicopter. Winning the game, however, requires venturing into enemy territory where the flag lies hidden under a building, a place of exceptional hostility bristling with a profusion of gun turrets. But because the guns have a limited number of angles to fire along, they can be successfully taken out with care.

All buildings and structures can be blasted, though hitting friendly buildings earns the enemy points. When certain buildings are destroyed, men run out, if they are on your side you may pick them up and take them to a first-aid post, if they are the enemy – and you are feeling particularly nasty – you may crush them at your leisure. Dropping men off at a first-aid station gains points and extra mines (one for every five men). Mines are laid by stopping and pulling back on the joystick while pressing fire. Topping up fuel is done at base or by destroying enemy fuel stocks.



Tanking along the road in search of the enemy's flag

Once found, the flag has to be taken back to your own base for complete victory. *Fire Power* is great fun, especially for two players. The handling of the tank is awkward, but that adds to the realism, and being able to do swinging reverse turns is a neat touch. Solo *Fire Power* is frustrating because of the toughness of the challenge, but for two players, unlimited lives and head-to-head competition compensate greatly, resulting in a more enjoyable game.

AMIGA Diskette: £19.99

Apart from an attractive loading screen the Amiga is not given a chance to really shine. Graphics are adequate, with mediocre explosions but reasonable scrolling, and sound is similarly functional.

OVERALL 71%

OTHER FORMATS

There are no plans at present to convert Fire Power **to other formats.**

"Solo Fire Power **is frustrating, but for two players it is great fun . . . "**

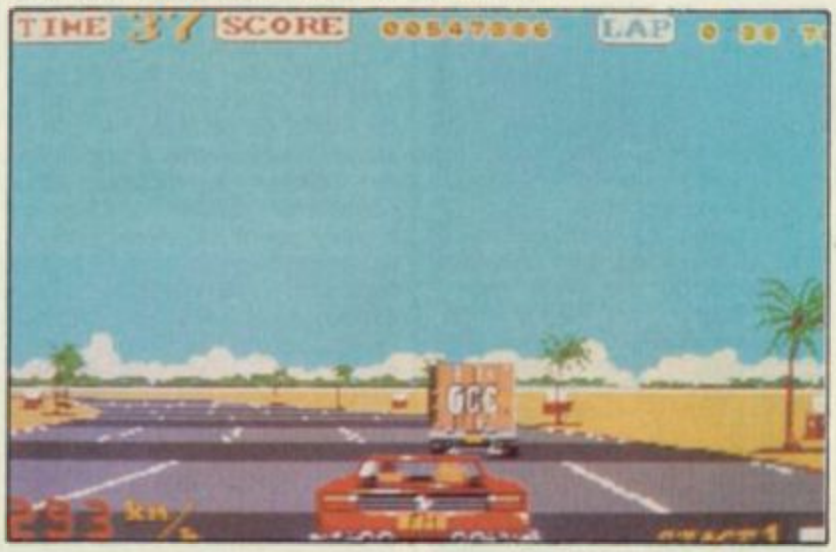
VERSION UPDATE

OUT RUN
US GOLD

Atari ST: £19.99

AT LAST! The long-awaited, much-rumoured ST version of the massively successful Sega coin-op is now here. *Out Run* (reviewed TGM**003**, C64 67%, Spectrum 61%, Sega 72%) is a car racing game; you control a Ferrari Testarossa speeding along a multilane highway. Aim: reach one of five possible goal lines selected by changing course at forks in the road. The game is played against the clock with extra time given if the car makes it through a checkpoint after each fork, failure results in end of game. En route hazards include trees, buildings, and signs as well as other road users, contact with any of which loses valuable time. Developed by **Probe Software**, the ST version was written by **Ian Morrison** with sonics by music maestro **David Whittaker** and graphics by **Freddy** and **Sue**.

Burning rubber as you set off in a race against time



Graphically *Out Run* is very good indeed, detailed, faithfully translated and smooth with no large jumps in animation. The illusion of speed is highly convincing and the other cars approach at a very fast speed making for a tough game. Whittaker's tunes are near excellent, matching the game's pace and adding immensely to the highly realistic effect of fast car racing. The select-a-soundtrack radio scene at the start of the coin-op version has been replaced by tunes alternating when the car crashes or goes through a checkpoint.

An annoying feature of the conversion is the Ferrari's instant stop when the time reaches zero, compared with the gradual deceleration of the coin-op game. Despite the occasional graphic omissions and the multiloading, the ST *Out Run* has been worth the wait and is an admirable conversion of an incredible coin-op . . . and yet, don't expect too much of the game even though it is on the ST.

ATARI ST: OVERALL 79%

PURE ESCAPISM

FOUNDATIONS WASTE

Exocet

The release of *Foundations Waste* marks the debut of Exocet, a genuinely new British software house based in Staffordshire. Credited to a team for whom this is the first exercise, **Erroll Elliston** and **Martin Bysh** have done the design code, graphics by **H Tomkins** and music by **W Beben.**

Yet another vertically-scrolling action game in the vein of *Slap Fight* (reminiscent even to graphic detail and sound effects), saves itself by implementing its elements cleverly. Zak Lambda Laurie is the kind of antisocial, free-thinking activist that any self-respecting authoritarian state can well do without. The Federation's Universal Security organization, UNISECT, is responsible for ensuring he serves his four life-sentences – he has already escaped six times only to be recaptured. Now, on his seventh escape attempt, he may make it. An Exidion 31812 fighter craft has carelessly been left on the penal landing strip and Laurie grabs it.

DO OR DIE

The prison, located in the Wastelands, has an exceptional level of security. Nevertheless there is a slight chance the single fighter may survive these defences, so all UNISECT personnel are informed that any errors will be punished by death, and incentive expected to make escape through the five zones to the Galaxy Perimeter impossible. These zones include powerplant, city, water, wastelands and space areas, all of which have a full complement of UNISECT defence vehicles.

To help Laurie a wide variety of weapons can be added to the fighter, ranging from side-firing lasers to shields, and smart bombs to a remote, auto-fire droid. But some weapons capsules are fakes and can briefly confuse the fighter's control – caution is required. If the craft is destroyed all its extra weapons are lost, fortunately this doesn't make further progress impossible.

While hardly original, *Foundations Waste* is still a very playable shoot-'em-up and a commendable first effort from Exocet.

ATARI ST
Diskette: £24. 95

Despite all the useless laminated security reports included in Foundations Waste**'s packaging, the game is quite good. Graphically it is consistently well above-average with colourful landscapes and numerous, well-detailed enemies. A few too many enemies can produce a notable slowing down of pace, but this rarely affects gameplay.**

OVERALL 77%

OTHER FORMATS

An Amiga version should be available toward the end of May.

"While hardly original, Foundations Waste **is still a very playable shoot-'em-up"**

WE CAN REBUILD HIM

BIONIC COMMANDOS

GO!

This is the second release, after *Side Arms*, in GO!'s licence deal with **Capcom**. Capcom do their own C64 conversions, but GO! prefer to redesign for the UK market. Conversion work for the Commodore 64/128 has been done by **Software Creations**, previously responsible for the excellent *Bubble Bobble*.

It has been almost a decade since our home planet was lost to the enemy and his secret Zargon missiles. In hope of regaining our world an elite group of Bionic Commandos was created and trained to be the best combat soldiers the universe has ever seen. Besides improvements in speed and stamina these Commandos have been equipped with telescopic arms. The special limbs allow them to pull themselves up onto raised platforms or swing across yawning gaps. There are five different levels of enemy fortifications to fight through, each with a doomsday weapon at the end which must be disarmed.

The Commando's quest begins when he parachutes into a dense forest made up of huge, towering trees. While watching for point bonuses, bionic packs to speed-up the telescopic arms and more powerful weapons, the Commando faces numerous enemy troops. Most of the soldiers only have bayonets and are forced to touch the Commando to kill him, some however have grenades or bionic arms of their own. A time limit adds pressure but some caution should be exercised with the bionic arms otherwise bee hives might be disturbed with potentially fatal results. Other lethal features include swooping birds and nasty yellow mounds. If the Commando should survive this first level he goes on to The Forefront, with more troops, electrified walls and patrolling black balls to contend with.

THERE'S NO ARM IN IT

Level three is a big one, and has lots of cute-looking guard dogs, heavily armed soldiers, *Return Of The Jedi*-style walkers and massive robots. After that it's just one more load for the next two levels. Level 4 – The Control Tower – has huge barriers, more walkers, and very aggressive mini-helicopters. Shoot the three green troopers at the top of this level and the final stage, Stop The Missile, is yours. Stirring tunes for each level urge you on to complete the game and master the demanding time limits.

COMMODORE 64/128 Cassette: £9.99, Diskette: £11.99

Despite its atrocious poster, Bionic Commandos **should prove to be GO!'s first major hit. The music is brilliant and adds immeasurably to the fun of playing, while the graphics are varied and effective. Gameplay owes a lot to platforms-and-ladders, but the bionic arm feature adds enormously to the enjoyment and helps make this a top-notch conversion.**

OVERALL 86%

OTHER FORMATS

By the time you read this conversions should have been released for the Spectrum: Cassette £8.99, Diskette £14.99, Amstrad: Cassette £9.99, Diskette: £14.99, Atari ST: £19.99 and Amiga: £24.99. A PC release is currently under consideration.

"The music is brilliant . . . a top-notch conversion."

THE BUBBLE BUS BLOB

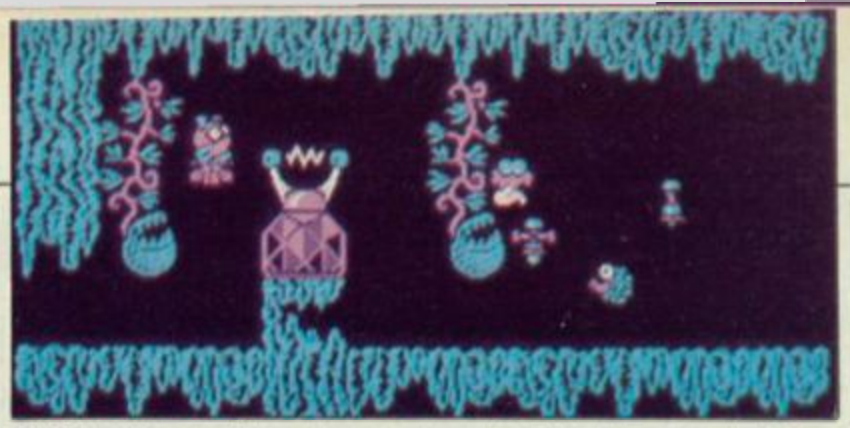
STARQUAKE

Mandarin

In a clever example of licensing, **Bubble Bus** have arranged for their 1986 8-bit hit *Starquake*, written by **Stephen Crow**, to be rereleased on budget by **Ricochet** at roughly the same time as Mandarin release 16-bit conversions for Atari ST and IBM PC, thus ensuring that both ends of the software market cannot help but notice this classic arcade-adventure. Conversion work has largely been done by **Bubble Bus** with contributions from David Whittaker's **Musicon** and Mandarin programmer **Dave McLachlan**.

On the rim of the Milky Way a black hole has appeared, improbably releasing an entire planet. The core of this planet is extremely unstable and may implode – destroying the entire galaxy – it has to be rebuilt, not an easy task as it is infested with a wide range of violent creatures. The person chosen to carry this task out is BLOB, the BioLogically Operated Being, whose piloting skills leave something to be desired since he starts the game beside the remains of his crashed ship.

A status display at the top of the screen shows score, lives remaining, energy level, bridge units remaining, ammunition and objects carried. Bridging units are important for crossing chasms and reaching high ledges, they appear below BLOB, but fade after only a few seconds. Replenishing lives, ammunition, bridging units and energy is achieved by walking over appropriate objects. Most aliens encountered merely cause a loss of energy but some kill BLOB outright.



BLOB zooms around the underground complex in his attempt to rebuild the planet's core – ST screen

CHEOPS PYRAMIDS

Hoverpads – which allow BLOB to fly – are used by stepping on them and pressing forward – this picks them up (and any other object found.) With the exception of the hoverpad there is a limit of four objects which BLOB can carry, none of them can be picked up while BLOB has his hoverpad.

To rebuild the planetary core BLOB first finds it and notes down the nine objects required – these change from game to game. To help BLOB there are several rather small Cheops pyramids which may be entered – if he is carrying an Access card – to trade useless objects for those he needs. A network of 15 teleporters can move BLOB instantly from one place to another, but only if BLOB knows the destination code. Discovering these relies on walking into the teleporters where the code is displayed. Fortunately, they remain the same for each game – as does the 512 flick-screen layout – so mapping can prove very useful, if not essential. At the end of each game there is a report showing score, the percentage of the planet explored and the number of core elements replaced. After this has been noted. another screen allows players to enter any high scores they might have achieved – these are then saved to disk.

The PC is the most impressive version of the two, making the best use of the machine's capabilities. The essentially pink and white colour scheme is attractive and BLOB moves around the screen

IBM PC
Diskette: £19.95

For Amstrad owners there is the added bonus of a joystick option through the port on the keyboard. This is one of the most effective PC games around, and with arcade-adventures so rare on this machine it will probably be very successful.

OVERALL 75%

GET THEXDER

THEXDER

Activision

Thexder was originally written in Japan – by **S Uesaka** and **H Godai** (you remember them) – where it became one of the all-time best-selling computer games ever; over 500,000 units were sold. The American firm **Sierra** was naturally interested in converting *Thexder* for the US market and, after some success the game is now available in the UK, through Activision.

Looking not unlike the *Transformer* 'Jetfire' *Thexder* is an anthropomorphic Super Assault Vehicle with the ability to change into a jet fighter. But the mighty warmachine has been locked in a high security facility with its pilot – you – still in the cockpit. To disable the central computer (and regain your freedom) before its numerous robots disable you, Thexder must be guided through 16 different localities (each loaded from disk). Regions vary from cargo holds to underground caverns, with acid baths and lava pits to liven up the scenery. Accompanying the action is the sedate tune, *Moonlight Sonata* by Beethoven.

ROBOTS GO BATTY

Thexder is essentially a traditional-looking maze game. Apart from the brilliantly smooth transformation from vehicle into the jet and back, it has a dispiritingly bland appearance. Nevertheless it proves enjoyable in play, incorporating addictive arcade action and a good deal of strategy.

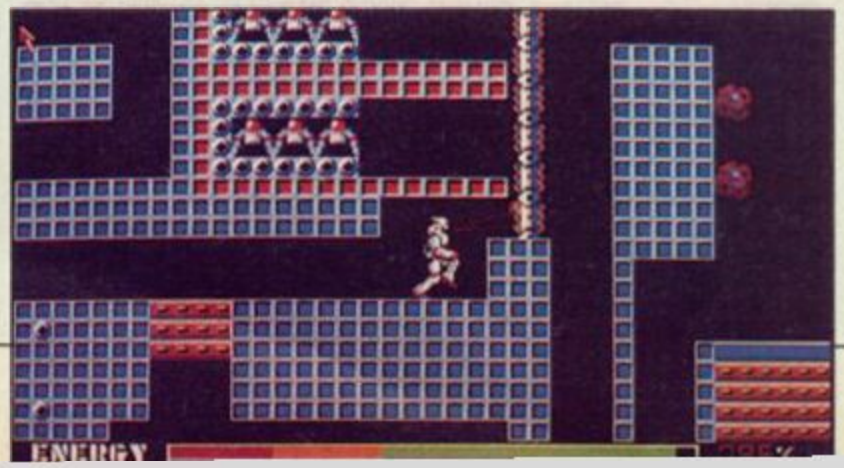
At the start Thexder is in robot mode with 100% energy, indicated by a digital read-out and bar. Below the bar a blank strip represents shield energy. Once on, the shield cannot be turned off but slowly runs down – unless you're under enemy attack, when it depletes more rapidly. Further displays give score, level/region number and 'Enmax' – the maximum amount of energy Thexder can have. Enmax is 100 at the start, but can be increased to as much as 500. Boosting it, and replenishing energy, is achieved by shooting particular enemy creatures such as the relatively harmless Baffins. Increasing Enmax can also be done by completing a level.

The 20 different robot enemies are shown on the instruction sheet along with a very helpful map of Level 1. Some robots are hidden behind bricks which can be shot to release them if you require

Thexder is overwhelmed by security droids and fails to find freedom

points rather than health. Other robots, and essential passageways, are found behind shield-walls. To cope with these opponents Thexder is equipped with an impressive laser which tracks up and down until an enemy is found, but in the much faster jet mode it becomes dependent on the ship's direction. Ultimately however, this adds to the fun of

The Transformeresqe hero comes across a seemingly impassable barrier during his search for the evil computer



speedily and smoothly – more so than on the ST in fact. Tunes, though not in the same class as *Mach 3*, are very good and add to the game's appeal. On the 8-bit machines *Starquake* was a resounding success and it's bound to be so on the larger machines too.

ATARI ST
Diskette: £19.95

A straightforward conversion with gameplay unaffected, the only changes concern graphics and sound FX. The graphics are in fact reasonable, making professional, if hardly astounding, use of the ST.

OVERALL 73%

OTHER FORMATS

8-bit versions are already available on Ricochet for the Spectrum, Amstrad and Commodore priced at £1.99 on cassette. An Amiga version is under consideration.

" . . . 8-bit Starquake **was a success and it's bound to be on the larger machines . . . "**

choosing between the two modes, with the slower, but more easily-controlled robot probably the favoured choice except where circumstances demand the jet.

AMIGA
Diskette: £19.99

Despite the claims that Thexder **was designed with 16-bit machines in mind, the game looks very much like an 8-bit conversion. Sound FX are poor, while the tune is inappropriate and probably not being put to the use its composer intended.**

OVERALL 74%

OTHER FORMATS

At present there are no plans to convert to other formats

"a dispiritingly bland appearance, nevertheless enjoyable arcade action and strategy."

MAMMARIES ARE MADE OF THIS

STRIP POKER II PLUS
Anco

Ever since card games were first translated onto computers, one or another strip poker game has been in circulation of one sort or another. Martech's *Samantha Fox's Strip Poker* has been the most famous (or infamous) of them all and more recently Diamond Games's *Hollywood Poker* has given 16-bitters some good titter and a chance to see what the fuss is all about. Now it's Anco's turn – with the sequel to *Strip Poker* complete with those naughty graphics.

The title screen displays a digitised picture of the two ladies (Sam and Donna), the option to play against either one and a further option to load in other opponents from data disks – available June onward and incorporating both female and male opponents.

The game is five card draw with the standard call, drop, raise and bet options. Bets and raises can be made in increments of five, from a minimum of $5 up to $25. Each player starts with $100, if this is lost, another $100 is borrowed against an item of clothing, pictures showing both lady and gent minus their loaned articles (the male is displayed much smaller . . .) The game then continues until one player loses all their clothes.

DONNA, SAM ANCO

Both ladies play a medium-difficult game, though Sam proves the tougher – she's shrewd whereas Donna relies heavily on bluff. In both cases, cautious play is the key to success and it should not take long to get both of them down to birthday suits – which is, after all, the *raison d'être* behind this intentionally provocative game. And on that score, the digitised pictures of Sam and Donna in various states of undress do deliver the goods. But it's short-term titillation; once all has been seen there's little incentive to repeat the experience. And it is not exactly the most challenging of poker games available either, but a considerable improvement over the original *Strip Poker* nevertheless.

ATARI ST
Diskette: £14.95

The graphics look as if they've been enhanced by an art utility after digitising; it gives a reasonable effect, bar the odd deformity from a poor amendment. Watch out for the data disks – a good idea, it should provide a longer-term appeal.

OVERALL 60%

OTHER FORMATS

Strip Poker II Plus **is also available on the Amiga: £14.95, PC: £19.95, Commodore 16/+4: £9.95 and Commodore 64: £9.95 – cassette and diskette.**

" . . . short-term titillation, and not the most challenging of poker games . . . "

Note the fine texturing and detail of the five cards and the way the artist has managed to subtly blend them with the very realistic green of the baize covered background

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Morpheus	—	12.99–D3	—
I.O.	—	7.50–D2	—
Alien Syndrome	7.50–D2	7.99–D2	7.99–D2
Stealth Fighter	—	12.99–D4	—
Dream Warrior	7.50	7.99–D1	7.99–D2
Intensity	—	7.50–D2	—
Samurai Warrior	—	7.50–D2	—
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Shackled	7.50–D1	7.99–D2	7.99–D2
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Buggy Boy	6.50–D2	7.99–D2	7.99–D2
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Guild of Thieves	— –D2	— –D4	— –D4
Jinxter	— –D2	— –D4	— –D4
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Outrun	7.50–D2	7.99–D2	7.99–D2
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SOFTWARE ***TITLE***	ATARI ST	AMIGA	IBM PC
Carrier Command	19.99	19.99	19.99
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Gauntlet II	16.99	—	—
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Ikari Warriors	12.99	—	16.99
Gold Runner II	16.99	—	—
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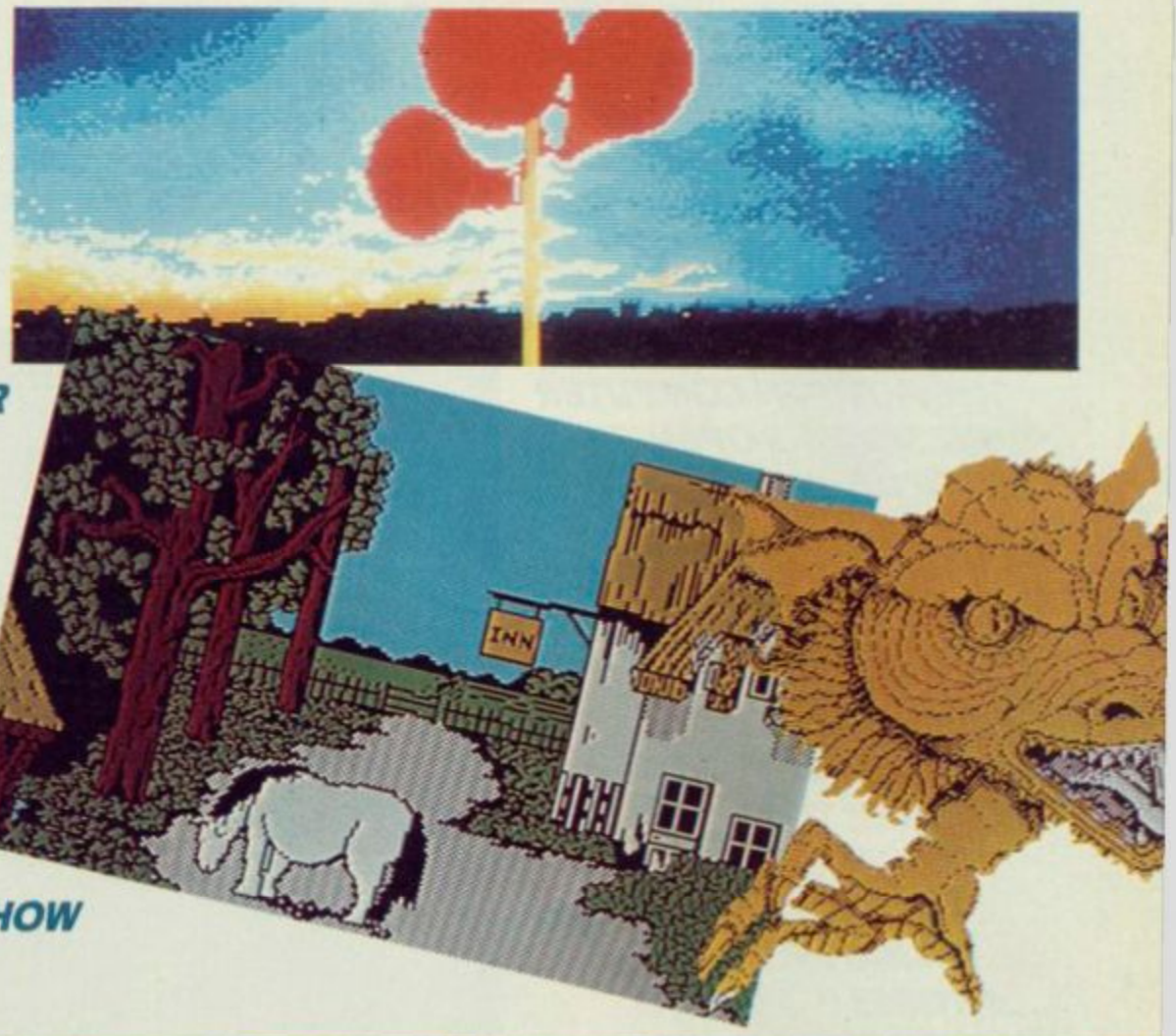

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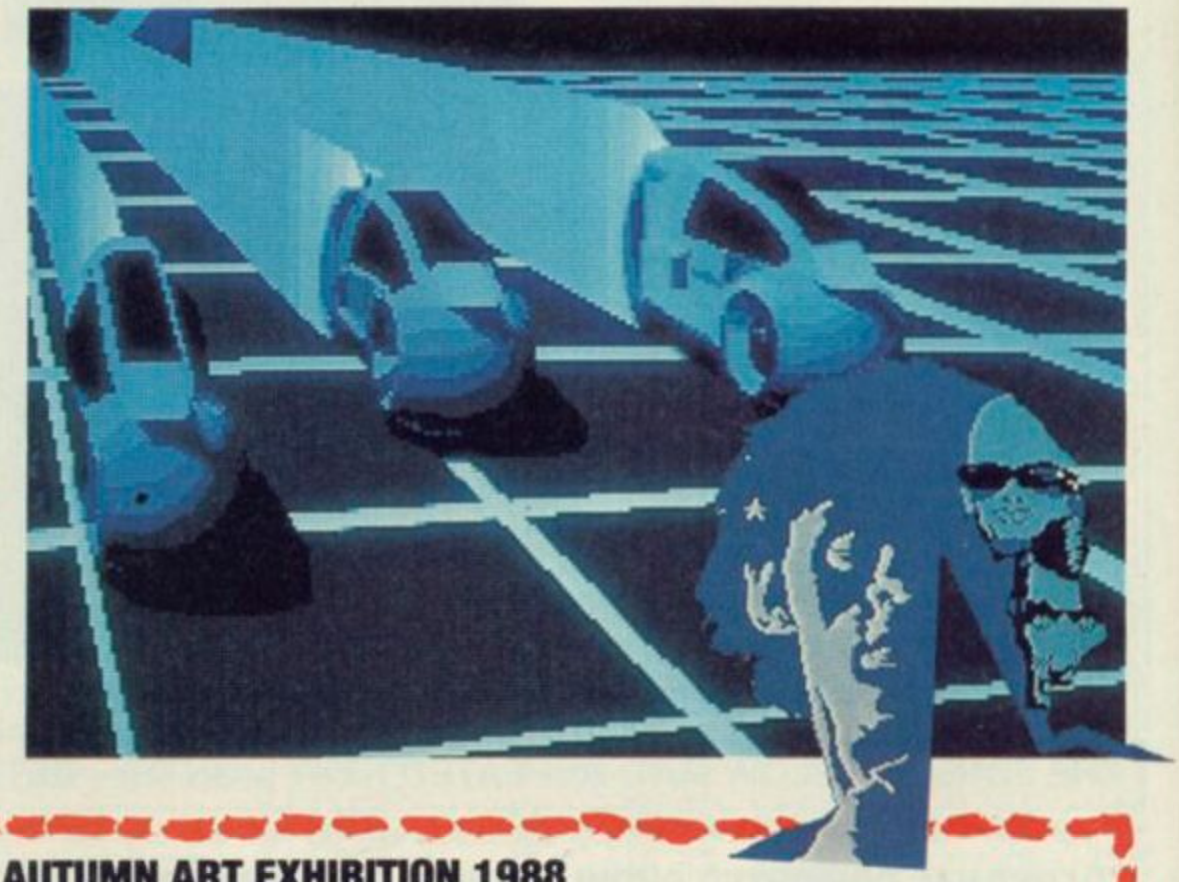
From the entries received, approximately 30 works of art will be selected across all the formats by a panel of experts for exhibition at the 1988 Personal Computer Show at Earls Court. There, between September 16-18, over 60,000 people will visit the show and see your work if it is selected. And added to that thrill you will be able to sell your work to the public and there are prizes for the top entrants. So get to work now, read the small print below very carefully, please, and get your submissions in to us before the closing date.



PERSONAL COMPUTER SHOW AUTUMN ART EXHIBITION 1988

CONDITIONS OF ENTRY

1. The Personal Computer Show Exhibition sponsored and organised by Newsfield Publications is open to professionals and amateurs. The Professional Category includes persons who earn a living from designing computer-generated graphics for art purposes, television, advertisements, games or any form of commercial display.
2. All entrants must be over 18, or if under 18, must have the consent of their legal guardian and their entry form signed by their legal guardian.
3. Submitting work for the exhibition and returning a signed copy of the entry form will be deemed as acceptance of all of these conditions of entry contained herein.
4. Any art/graphics utility, whether commercially available or specially devised, may be used. But all submitted works must be static – animations will not be acceptable.
5. All work must be submitted on a suitable disk or cassette tape. In the event of a failure to load, entrants will be contacted and requested for a replacement. Where supplied data can only be loaded within a commercially available utility program, the utility used must be stipulated on the entry form at the appropriate point. Where non-available utilities have been used (such as self-devised programs), entries will not be accepted unless also accompanied by suitable loading programs and detailed instructions on their use.
6. Submitted work may not have been used before for any commercial processes, nor have appeared in printed form in any publication, nor be allowed to appear in printed form in any publication until after September 18 1988 without the prior consent of the Exhibition organisers.
7. Submitted work must, in the view of the judges, be original and not merely copies of existing media images, commensurate with artistic freedom to draw on ready-made images for inspiration.
8. All program data entered for consideration must run on one of the following computers: Spectrum 48K, Spectrum 128K (+2 and 3), Amstrad CPC 664/6128, Commodore 64/128, IBM PC, Atari ST, Amiga (any model). Works running on other machines will not be accepted.
9. The judges will consider submitted work within the context of each computer's capabilities and make every possible attempt to see that the final exhibition reflects the ranges of machines encompassed in point 8 above.
10. Entrants may submit up to a maximum of three works each. All cassettes and disks must be labelled clearly with the entrant's name, address and titles of works contained therein.
11. The final selection of works to be exhibited, and those chosen as prizewinners, will be at the sole discretion of the judges, and no correspondence may be entered into on this matter. Acceptances and rejections will be notified to all entrants by September 8 latest.
12. The organisers cannot be held responsible for the safe arrival of disks/cassettes. You are advised to despatch data by either registered post or recorded delivery and mark the packaging clearly as containing "MAGNETIC MEDIA". Disks/cassettes will only be returned if the entry form is accompanied by a suitably stamped addressed envelope. If you wish return to be by recorded delivery, then extra payment to cover the cost must be included.
13. Any submitted work carries an acceptance of first publishing rights free of charge in Newsfield Publications magazines. Exhibitors' work will be made available for sale to the public at the Personal Computer Show in suitably printed form on an order basis, either framed or unframed (prices at the discretion of the organisers). Receipts of sales less a 20% commission will be the property of the artist.
14. All exhibitors will be provided with free entry to the Personal Computer Show on the public days (September 16-18). Though not a condition, it is desirable that exhibitors should be available for any attendant public relations exposure of the exhibition either before, during or after the show.

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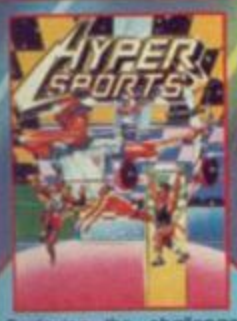

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Screen shots from Atari ST version

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LORDS OF TIME: ***"Destined to become a classic"*** *– Computing with the Amstrad.*

RED MOON: ***Best Graphical Adventure or Best Adventure of the Year*** *– Zzap 64, Crash, Amtix, C&VG, CCI, and Amstrad Computer User.*

THE PRICE OF MAGIK: ***"Another superb adventure . . . their best yet"*** *– Commodore User. Also a Crash Smash.*

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Level 9 have long shown the way for British adventure companies to succeed. From the verb/noun days of *Colossal Cave* and *Adventure Quest*, this small publishing house has been the flickering torch spreading fingers of light throughout the cold, dank world of utility-created adventures. Recently their output has been almost non-existent, the last game being the sub-standard, *Knight Orc*, on the Rainbird label. Level 9 have now severed their link with Rainbird and subsequently merged with the new marketing force, Mandarin Software. The first release from this new partnership is a trilogy of revamped adventure oldies; *Lords Of Time*, *Red Moon* and *The Price Of Magik*, collectively titled *Time And Magik*.

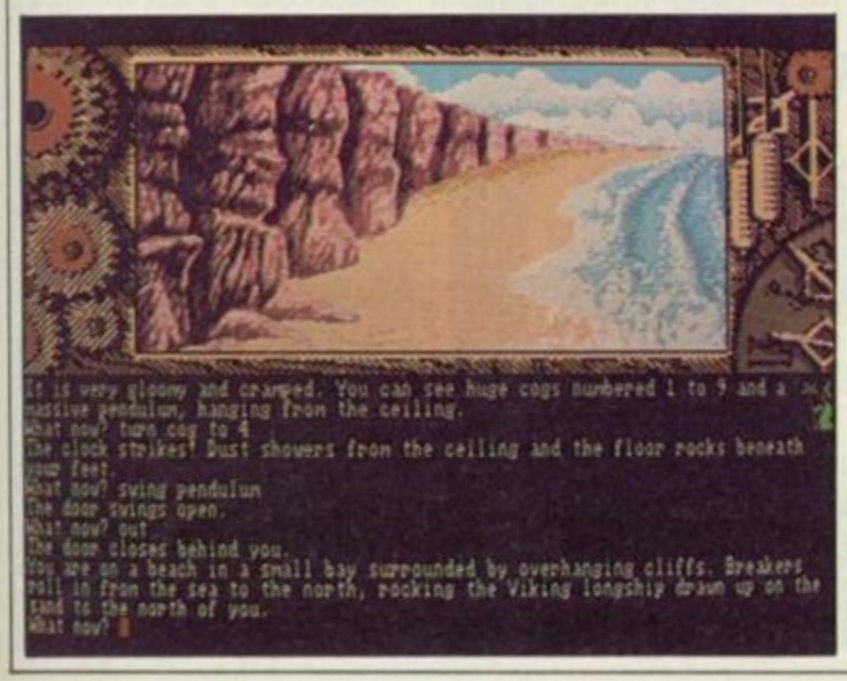
LORDS OF TIME

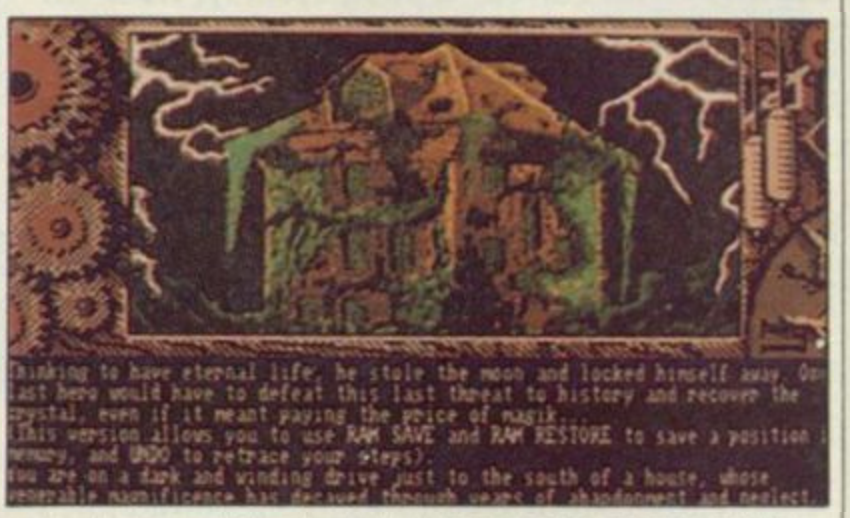
It was a long time ago when first I delved into Sue Gazzard's world of time and hourglasses. In the days of the text-only, two-word-input adventure, when men were men and Balrogs were rife, I spent many a happy hour journeying through various time zones in the magical grandfather clock.

The innocent examination of the picture in your living room is sufficient to involve you in this adventure in time. You discover from the old man depicted therein that the Timelords are planning an evil future for mankind. You have been chosen to avert this madness by travelling through time and collecting the nine items which make up the formula needed to defeat the enemy. Once found, the ingredients must be mixed in a cauldron which is guarded by the Timelords.

Lords Of Time is an excellent adventure, consisting of the one main element which all good quests should include: that is to allow the player to travel around, exploring, pondering and experimenting before settling down to crack the game. The old grandfather clock enables you to journey through nine time-zones searching for, and hopefully finding, solutions to the many puzzles encountered.

A picturesque coastline to be found in part one


It is very gloomy and cramped. You can see huge cogs numbered 1 to 9 and a massive pendulum, hanging from the ceiling.
What now? turn cog to 4
The clock strikes! Dust showers from the ceiling and the floor rocks beneath your feet.
What now? swing pendulum
The door swings open.
What now? out
The door closes behind you.
You are on a beach in a small bay surrounded by overhanging cliffs. Breakers roll in from the sea to the north, rocking the Viking longship drawn up on the sand to the north of you.
What now?


thinking to have eternal life, he stole the moon and locked himself away. Our last hero would have to defeat this last threat to history and recover the crystal, even if it meant paying the price of magik.
(this version allows you to use RAM SAVE and RAM RESTORE to save a position in memory, and UNDO to retrace your steps)
You are on a dark and winding drive just to the south of a house, whose

RED MOON

In a time when magik still worked and mythical monsters guarded fabulous treasures, you are charged with the task of rescuing the stolen Red Moon Crystal, the only source of magik in the land. Many weapons and spells are made available to aid your quest, and you will need all the help you can get.

As soon as Level 9 began incorporating magik into their adventures, their games lost something. Originality and the depth of play decreased and the once-present addictiveness faded. *Red Moon* still evinces some better traits of the Austins' earlier offerings but was, and is, a definite indication of the poorer games that were to follow. The main aim of *Red Moon* is to find magikal items with which to cast spells on certain characters to clear a path to the crystal.

THE PRICE OF MAGIK

The house of the Red Moon is a weird place, haunted by arcane powers from the mythical past. It is only place where one might rise from sorcerer's apprentice to powerful wizard, yet cheat the price of magik.

Rummaging in the attic, you discover a wrinkled balloon with tiny writing on it. Intrigued, you blow and the balloon swells like a globe . . . then bursts. As the echoes fade, you reopen your eyes and find yourself in a bleak landscape, outside the house of the Red Moon. The way back is to find the thief Myglar, the stolen crystal (again) and master 18 magik spells, all without paying the price.

I didn't like this game when it was first released and still don't. There is nothing to bind the adventure together, it is simply a number of rooms containing unexciting creatures, clues to one of the 18 spells or nothing of interest. The effort required to map the game and indeed to play it to any extent soon became too much for the rewards received.

The graphics on the updated versions of all three games are well done and although adding little, they are enjoyable – even though some are used in more than one game. The enhanced text tends to stick out as an add-on – the original descriptions were sufficient – but the many useful features such as the UNDO command, the RAM save/load option and the ability to edit previous inputs are a welcome development.

Time and Magik is good, not all the components are particularly impressive, but the complete package makes a worthy addition to your collection – especially if you have not played the games before.

ATMOSPHERE 58%
INTERACTION 78%
OVERALL 71%

UN-STAC-ING THE ODDS

For several years Tony Bridge wrote one of the most widely read adventure game columns in Popular Computing Weekly**, now he lends Rob Steel a hand in assessing the virtues of Incentive Software's latest utility release, the ST ADVENTURE CREATOR costing £39.95**

The Pawn was the first adventure to use the 16-bit environment to its full advantage, although I have fond memories of Talent's *Zkul*, whose storyline and atmosphere was much stronger – unfortunately, it lacked the important bells and whistles of the Magnetic Scrolls opus. How would you like to create a similar smash hit? Impossible? Incentive Software say you can, simply by using their new *ST Adventure Creator* (STAC).

STAC's pedigree goes back a long way (at least four years!), to when I saw the first version (the *Graphic Adventure Creator*, or GAC) on the Amstrad CPC. Seeing it then was enough for me to lay out hard-earned money for the machine – an excellent example of 'The software sells the machine'. *The Quill* was around then for the Spectrum, and eventually became the *Professional Adventure Writer* (known, you guessed it, as PAW), with a version appearing for the Amstrad (and less successfully some other machines, too) along the way. Meanwhile, GAC cross-fertilised to the Spectrum. Between them, these two were responsible for many thousands of adventures of varying degrees of interest and taste.

STAC and other utilities like it are a mixture of database and Expert System. Unlike a database, however, the user (player) is not able to search the file – like an Expert System, the player finds himself passed down the branches of a tree-like system. The first room or location is the starting point, with the player's choice of direction leading on to the next level, which has its own branches leading to other locations which have their branches . . .

Creating an adventure is most importantly a matter of pre-planning – rushing home with your fresh copy of STAC and diving straight into it is a great temptation, so easy is the package to get started on and understand. But the temptation must be resisted! However, once you've got a nice pile of paper filled with notes, the fun can begin. Entering all the adventure data is made as painless as possible in STAC, with the first job being to enter a few of the words which you want your adventure to understand and act upon at game time. As well as a small sample adventure used to illustrate salient points in the manual, STAC comes with a very handy start-up file which includes many of the common words such as North, South, Get, Inventory and so on. This saves you having to type them yourself. Because STAC checks each entry at input, you need these words to get on with data entry.

Probably the most important feature of any utility is a decent manual, and in STAC's case it is very chatty, covering everything you need to know, and in the right order albeit at a speedy rate. My review copy was without an index, which made specific subjects hard to find, but Incentive tell me that the final version will contain one. Although everything you need is here, there is a lot more that is not, and which must be discovered by a bit of intelligent brainwork – like most languages, STAC takes some time to yield up all its secrets, and I can see a healthy market in the months to come for all the little hints 'n' tips' n' tricks that will surely come to light with deeper acquaintance.

TRIAL RUN

Once you've loaded in the start-up file, you can get going on typing in the room descriptions. As you do this (in 40- or 80-column mode), you can embed certain commands so that, for example, printing starts at a specified point on the screen, colours change or a little beep will sound. Along with room descriptions (you can define both brief and verbose versions), you must inform STAC of the other rooms connecting with this one, and also the picture, if any, to be drawn as the player enters the room; and you must decide on conditional connections, so that, for example, locked doors prohibit entrance until a key is found.

At this point, room descriptions and short vocabulary are enough to let you run the adventure and walk around the landscape, but of course, not much actually happens. There are several options open now: more words can be input (verbs, nouns and adverbs), messages can be set up (of the YOU CAN'T DO THAT variety) or you can go on to create a few objects.

Objects are given a unique number (actually, two objects can be the same number if you want an object to be called by more than name: 'Daily Paper', 'Paper' or 'Daily' for instance – be careful with this one, though!) and a weight so that there is be a limit to the amount a player can carry.

IT'S ALL CONDITIONAL

Although there is more to do now in your little test adventure, it is very boring if all you can do is just walk around picking up and dropping objects. The real meat lies in the puzzles facing the player and the manipulation of objects. These are handled by several kinds of conditions, or tests if you like, applied by STAC to the player's input and situation.

The first type is the Local Condition. This applies, as you may guess, to an individual location, and covers situations which can only be met in that room and not globally (thus checking to see if the player has, for example, found the secret door behind the curtains). High Priority Conditions apply to the whole framework of the adventure, checking at each turn to ensure that the player is still alive, that he still has the lamp on, that the sleeping dragon hasn't yet been tripped over, and so on.

Low Priority Conditions come into play (pardon the pun) after High Conditions; these check inputs such as GET ALL, EXAMINE DRAGON etc, and act on them.

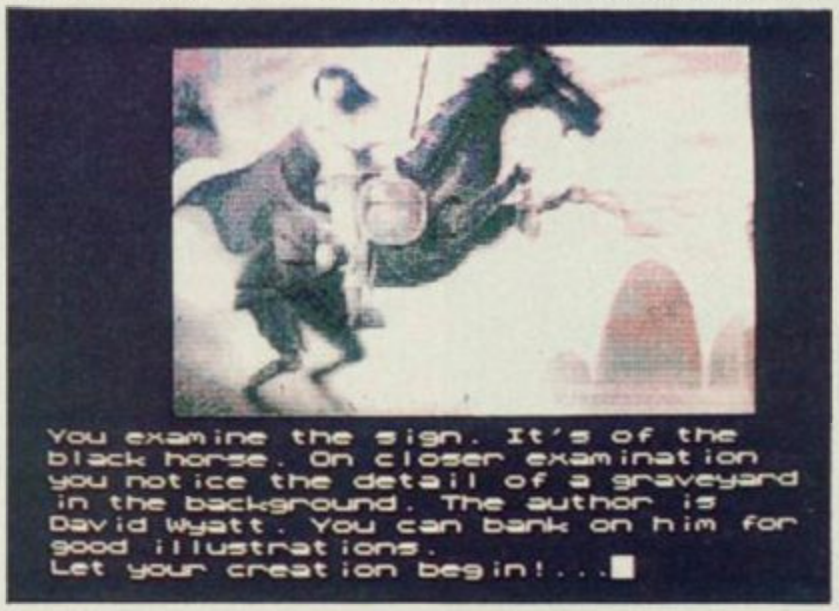
As I've said, these Conditions are where the real work of the adventure is done, and they are the most complex part of STAC. Entered line by line and room by room, they invariably take the well-known form of 'IF . . . THEN'. Like any good programming language, this sort of construction is very easy to follow. A typical example might be: *If verb* 'get' *and noun* 'all' *then* getall *wait*. In this case, the player has typed GET ALL, which invokes a special STAC routine called, remarkably enough, Getall (which does just that). 'Wait' merely instructs the program to wait for the next input. Although that's a very simple one, Conditions get more complex as the puzzles require more devious processing from STAC.

Finally, our data can be influenced by Markers and Counters, which are equally important to a good adventure as the Conditions. Markers (512 of them) are flagged on or off, depending on whether a certain action has been undertaken by the player – for example: a Marker is set if a door is locked, and reset if the player manages to unlock it. Counters (also 512 in number), are used to store numbers, such as the amount of gold found or the number of steps made by the player across a bed of live coals.

The beauty of the utility is that as all the data is being typed in, the effect of a new entry can be tested immediately by running the adventure. By accessing the Begin Where? option on the Menu to change the starting point, a test adventure can be quickly checked from any point. The whole procedure of entering and checking data in this way is very quick and (I think!) error-free and robust.

GRAPHICS AND TEXT

Once all the data is in, you can start to glamorise. I mentioned pictures and, indeed, this was the main reason for the program's existence when it first appeared. Entering Graphic Mode from the Main Menu presents you with the


You examine the sign. It's of the black horse. On closer examination you notice the detail of a graveyard in the background. The author is David Wyatt. You can bank on him for good illustrations.
Let your creation begin!...

drawing screen. Fast in use, it contains most basic facilities such as brushes, spraycans and pencils, each of which can be of various sizes and textures. There is a fill routine, as well as circles and ovals and so on. To the right of the illustration, you can see a magnification area which allows for pixel-fine accuracy. Although some nice pictures can be drawn on this screen, its main use will be to import *Neochrome* or *Degas* creations. For example, text can't be placed within the drawing area – one reason for resorting to something a little more powerful.

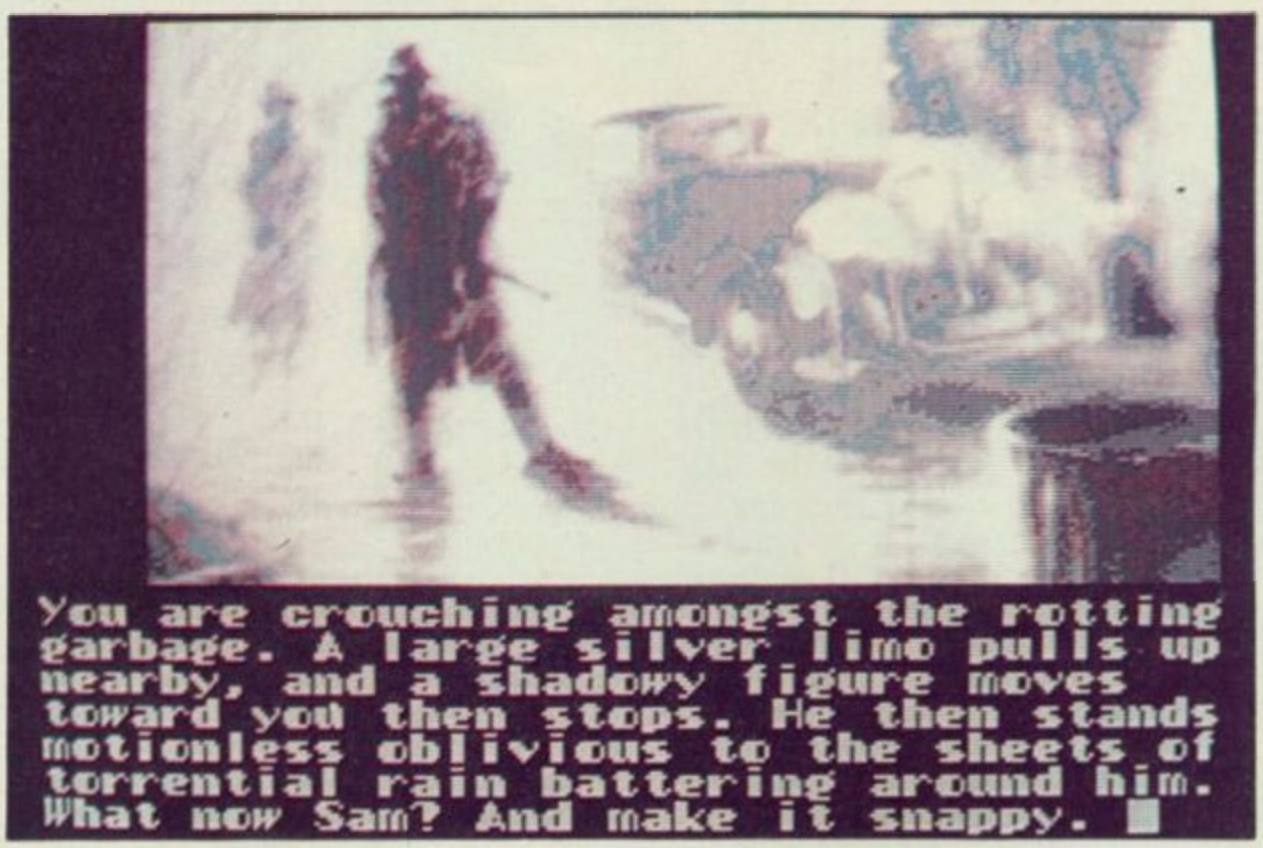
Another nifty inbuilt facility is the Font Editor. This is of the usual pixel on/off variety using a square of 8x8 – as with everything else in STAC, this procedure is very quick and easy; the results are instantly displayed and affect the whole program until replaced by another font. A fileful of fonts is supplied, and I'm glad to see that there is even one showing you how not to do it – a good example of the friendliness of the whole package.

Music is catered for too, though a rather crude system – it's too much to hope for a friendly graphic input routine I suppose. Producing anything more than a few bleets requires a knowledge of musical notation, though chords are quite possible if you have the patience. The manual gets a little confusing here – one of the few weak points of the whole package.

POT PLANTS

Bridge's Law of Expanding Resources states that adventures will expand to fill all available memory, and it can be seen in operation with the Atari machines! Although there is initially at least 200K free for your data and graphics, I'm sure that this will get eaten up very quickly. To meet this eventuality, STAC allows multi-part adventures to be set up, and these can be spread over several disks.

Parsers are one of the benchmarks of modern adventures – several years ago, we were all quite content to type GO WEST – GET LAMP. Now we're told that we need to use such rubbish as


You are crouching amongst the rotting garbage. A large silver limo pulls up nearby, and a shadowy figure moves toward you then stops. He then stands motionless oblivious to the sheets of torrential rain battering around him. What now Sam? And make it snappy.

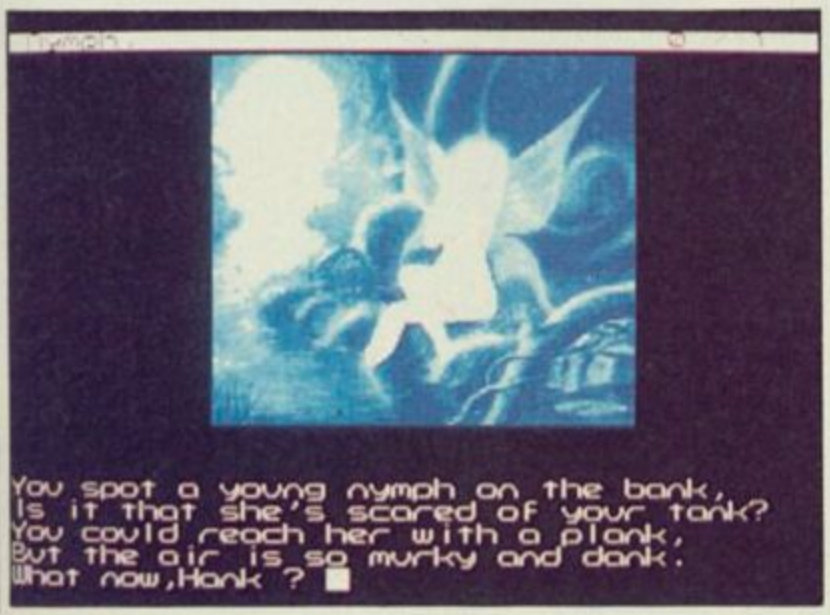
PLANT THE POT PLANT IN THE POT PLANT POT and keep a straight face while doing it. However, it is obviously useful to sometimes type GO WEST, GET THE LAMP AND LIGHT IT, and with STAC you can set up this sort of thing quite easily.

A demo disk is available in the public domain and costs just £1.99 from Incentive. It contains a slideshow of the sort of graphics which you can expect to create for STAC (though I must say that it would be an achievement to emulate them as they are beautifully drawn – TGM**006** Previews, and again here) and a free adventure, *Shymer*, written by Pat Winstanley. Now, as an adventure it is pretty good, and has already done well on 8-bit machines. I'm quite happy to recommend it, and at the price it is the best bargain this side of your local Co-op. So, put this mag down now (I know how hard that can be!) and rush out this very minute to buy it!

However, as a demo of STAC's capabilities (and you can't begin to guess how much it hurts me to say this), *Shymer* is a little disappointing. If you are expecting no more from your ST than a puzzle parade of the 'You are in a. . . . You see a . . . . . Now what?', with some well-drawn pictures accompanying most scenes, then *Shymer* and its progeny will be a very good example of what you can do – and if the resulting adventures are also made available in the public domain, then all well and good, and I hope we see many of 'em. But I hope that seeing this sort of ultra-conservative program will not deter anyone from reaching beyond the safety of convention and aiming for a little more.

NO GEM

STAC makes adventure-writing a very simple matter for any would-be author. I have a few reservations about the utility: there is a practical limit of eight text lines in each location description, and I found this limit all too-easily reached (though pressing a message into service or more simply switching to 80-column mode gets around this), but getting those screensful of scene-setting á la Infocom is not going to come easy. Being a newcomer to the ST, I'm still dazzled by the GEM environment, and I'm disappointed that STAC doesn't support it. But to show my general enthusiasm of STAC, I've even decided to write an adventure with it, and if you know me, that's going to be like strapping a Merlin engine on the back of Eddie Edwards! In fact, although ease of use is one of its greatest strengths, that may also be one of STAC's weaknesses. Tim Gilberts, coauthor of the venerable *Quill*/PAW duo, expressed to me the opinion that as an operating system becomes more friendly and easy to use, so its real flexibility suffers. With a bit of thought and a lot of imagination, an adventure can be created with STAC to look like *The Pawn* or *Zork* – unfortunately, I've seen the results of sloppy thinking and arid imagination too many times to believe that I'll see a flood of Infocom/Magnetic Scroll-like adventures. But there will of course be a (very) few writers who will stretch the utility and produce something worth looking at. It is certainly capable of it.


You spot a young nymph on the bank,
Is it that she's scared of your tank?
You could reach her with a plank,
But the air is so murky and dank.
What now,Hank ?

STEEL SWARF

Henry Mueller has been successfully running **The Adventurers' Club** for three years. They recently held their third Golden Chalice award ceremony, where members of the club are asked to vote for their favourite adventures from the previous year. The ceremony has become one of the most prestigious in the adventuring world. This year 823 votes were cast and the results – in reverse order – were:
3rd: the Bronze Chalice went to *Knight Orc* (Rainbird/Level 9)
2nd: the Silver Chalice went to *Rigel's Revenge* (Mastertronic)
1st: the Golden Chalice was awarded to *Gnome Ranger* (Level 9)
The Guild Of Thieves from Magnetic Scrolls/Rainbird received an honourable mention.

In TGM**004** I reviewed two adventures from Visual Dimensions, unfortunately I neglected to print the address from where you may order their products. It is: **Visual Dimensions, *59 Nunnery Lane, York YO2 1AH***

Spectrum +3 Disc £14.99

Spectrum 48/128 Cassette £8.99

Amstrad CPC Cassette £9.99
Disc £14.99

Commodore 64/128 Cassette £9.99
Disc £12.99

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THE LIGHTER SHADES OF 16,777,216 PALES

Yes the Super ST is here – well almost. Robin Hogg spoke to Elmtech about the truly astonishing new PARSEC GRAPHICS INTERFACE.

Imagine your ST having over **16 million** colours, imagine a programmable screen resolution of 1024 x 1024 pixels, imagine your ST running at 6.25 MIPS (million instructions per second). Your imagination will become reality in the very near future with the release of the Elmtech Research's ParSec Systems.

When word first reached THE GAMES MACHINE offices of this incredible piece of hardware and its capabilities many jaws were seen to drop. The specifications were just too good to be true and with a speed of operation which makes the Archimedes seem slow by comparison, convinced us it had to be an April Fool joke. But it wasn't, isn't, and when it arrives the ParSec will effectively turn your ST into a Super ST; whether it is a humble 520, 1040 or Mega ST, coupled with ParSec it will be one of *the* fastest home computers around.

THE PARSEC RANGE

As Elmtech's David Encill and Martin Lockhart told me when they visited THE GAMES MACHINE to explain in detail the system, they are designing three ParSecs: two graphics systems and a text system intended for office and business use. First in the pipeline is the ParSec Colour+ boasting specifications such as 1024 x 768 programmable resolution and a 'mere' 4096 colours with 16 colours per line. In fact that is a higher resolution than they had anticipated, as David explained: 'We had a resolution of 1040 x 512, but due to the worldwide shortage of D-RAM chips, we're using the more expensive V-RAMs (Video-RAM), enabling us to increase the specification.'

In fact the specifications combined with 768K of V-RAM chip internal memory make the ParSec Colour+ an outstanding system in itself. But it pales in comparison with the amazing ParSec Pixel+, the top-of-the-range system with capabilities which will make ST 16-bit art packages such as *Degas Elite*, *Neochrome* and *DeluxePaint II* on the Amiga look primitive. With 16,777,216 (yes, over 16 million) colours to choose from and an incredible 256 colours possible per line, this isn't just a package for the average doodler!

. . . line drawings are performed at the staggering speed of 2.1 million pixels per second!

The third system is ParSec Text+, primarily intended for small office and business use. As such it will not have the colour palette chip of the Colour+ and Pixel+. DTP (Desk Top Publishing) will be possible through the full use of printers (Epson and Laser printers included) using the STs hardware and software capabilities for printing hard copy.

The ParSec graphics range will have 23 in-built commands, programmable through ST Assembler and C allowing mass movement of graphics both shaded and vector (line drawings are performed at the staggering speed of 2.1 million pixels per second!) The blitter will have nothing on this system. Along with commands, full software support is to be offered: an art utility disk on the lines of existing art packages in style and architecture, but utilising the massive colour palette, for the Colour+ and Pixel+ (and later on an animation utility) and a professional word processor and DTP programs on internal ROM firmware for the Text+.

AND GAMES . . . ?

I pointed out that at the suggested prices, the ParSec system will be above the pockets of ordinary ST owners. 'No, it's not necessarily a man-in-the-street type of package,' agreed Martin Lockhart, 'it is for business and professional use . . . but who knows? The ST does have a

large user base and a lot of people have approached us as far as recreational software is concerned. You could have some amazing games . . . ' he trailed off wistfully.

Just imagine a flight simulator using *real* photographs and moving at a rate of 160 nanoseconds! According to Elmtech this just could happen although it would be a long time in the future.

OTHER COMPUTERS TOO

Why pick on the ST, I asked. Simple enough, David told me: 'The ST was the larger market at the time we started – I know the Amiga is catching it up – and we thought it would be the most initially viable. There *are* going to be versions for the Amiga, Apple Macintosh and the IBM PCs,' he emphasised. 'Maybe even the BBC range, we don't know yet, but the ST is becoming accepted as the main educational standard, a better alternative with its 16-bit technology.'

The system itself in all its forms plugs into the ST through the cartridge port via an interface link and effectively uses the ST as a host machine. 'The ParSec is a dedicated, stand-alone graphics processor with its own RGB output,' David said. 'It *is* like a computer.'

Permanent picture storage is through the ST's disk drive, but having a 720K double-sided disk drive may not be a bad thing considering the disk space full-colour photograph-quality pictures take up (360K of space goes very quickly indeed, as ST graphic artists will testify!).

Ironically, the ST, claimed David, is the hardest of all the machines to interface: 'The fastest port is obviously the cartridge port, which only has a read capability. Through some very clever designing we have managed to make it read *and* write!'

Interestingly, because of its dedicated internal architecture, the specifications given for the ST ParSec will be the same on all the other machines Elmtech are looking at. For the user, setting up will be simple enough. ParSec uses the ST monitor, but it has to be a colour monitor capable of medium resolution 640 x480 non-interlaced. Paper-white monitor owners will have to buy a suitable colour monitor, although David did add: 'You could run it with the paper-white with the ST, have that to use to load up the program initially, and then the ParSec could transfer its output to the colour monitor.'

Connecting up is simple: plug the provided lead into the ST cartridge port. But: 'We believe the cartridge port doesn't have enough power on its own to power the ParSec, but the ST power supply has got enough on its own; so we may need an auxiliary power lead from the joystick port,' and that would come packaged with the ParSec.

The finished product is intended to be no bigger than a copy of THE GAMES MACHINE (and about 1" deep), although according to Elmtech this could change before it finally becomes available. The casing will naturally follow in the traditional colour scheme of the ST's light grey and could well act as a monitor stand.

THE PARSEC FUTURE

As I write this, the ParSec Pixel+ prototype is at a preproduction stage – an ungainly 'breadboard' beast. That's why there are no pictures available as Martin told me: 'We want this on the market, on the shelves, as quickly as possible, but we don't want to rush it and look silly. We think it is rather unprofessional to show a prototype.'

Full production begins within the next two months, barring any eleventh hour problems. Following up the ParSec Pixel+ and Colour+ will be the systems for the Amiga, although this is still some way off yet.

The ParSec potential is truly limitless. Architects working on £200,000 workstations could scrap their existing workstations and buy several Pixel+ systems plus monitors. With its Genlock compatibility (see also the *DeluxeProductions* article on these pages), Elmtech have had considerable interest from television companies – and it might not be long before we start seeing ParSec generated title sequences. There is a medical application too, body scanning in particular, and again they have had several inquiries from hospitals and universities doing medical research.

And then there are those 'amazing games' . . .

NEXT MONTH: all being well THE GAMES MACHINE will take delivery of a ParSec Pixel+ for evaluation, so keep tuned for our report!

. . . imagine a flight simulator using photo-graphs and moving at a rate of 160 nanoseconds!

Connecting up is simple: plug the lead into the ST car-tridge port.

TECHNICAL BOX AND PRICES

ParSec Specification

32-bit 40MHz processor runnir:g at 6.125 MIPS

	COLOUR+	PIXEL+	TEXT+
Programmable Resolution	1024x768	1024x1024	1024x1024
Colours	4096	16,777,216	n/a
Cols/line	16	256	n/a
Memory	768K	1.5Mbyte	648K
Anticipated Price (+ VAT)	£499	£699	£ tba

ParSec Performance (nS = nanoseconds)

32-bit add	160nS	6.25 million instructions/sec
32-bit multiply	336nS	0.29 million instructions/sec
Line (read)	480nS	2.1 million pixels/sec
Copy Block	320nS	3.12 million pixels/sec
Fill Rectangle	80nS	12.5 million pixels/sec
Blit Object	160nS	6.25 million instructions/sec

ParSec Software

The 'Artist' package will be included as standard, plus a variety of stunning demonstrations. DTP applications programs, CAD/CAM, Productivity and recreation programs to follow. An animation support program for the 'Artist' package is expected. Productivity programs will be able to import ASCII files (such as *DataBase*, *Spreadsheet* etc) from standard ST software and incorporate them as graphic output via the ParSec, including animated display.

All ParSec software for Elmtech Research is expected to use WIMP environment.

Genlock will be offered as an optional extra for the Colour+ and Pixel+ models. A Composite Video output will be provided along with supporting software. The price of Genlock+ is expected to be around £149 +VAT.

Interfacing

The ParSec will run with any ST (520 ST, 520 STm, 520 STfm, 1040 STf, 2 & 4 Mega) without modification.

Elmtech Research Limited is an amalgamation between Magnetic Media of Tamworth and CT Computers of Portsmouth. They would be delighted to hear from any programmers proficient in the language 'C', in the development of ParSec, address: *1 Victoria Arcade, Aldergate, Tamworth, Staffs B79 7DL*, Tel: 0827 59566 or 021-472 5719

STOPPING TO DITHER

In TGM003 we reviewed the classic Amiga art package DeluxePaint II from Electronic Arts. Now it is available for the IBM compatibles, and in some respects Robin Candy reckons it's more powerful than the Amiga version.

Running happily on the IBM PC, XT, AT PS/2i and compatibles, the Tandy 1000 and 3000 series and Compaq, *DeluxePaint II* is as good as your particular computer or graphics board – and at best, better than on the Amiga. Mostly it's down to resolution and, just like the Amiga version, the first requirement is to select the screen resolution and the number of colours that go to make up the palette. The exact selection made depends very much on the memory capabilities of the computer being used and whether it has any additional graphic boards fitted.

The screen layout is very simple, showing the current work area. All main drawing tools are displayed on the right-hand side of the screen represented as icons and other functions can be accessed from the menu bar across the top of the screen. The drawing tools feature continuous and broken line options as well as a host of shapes. Using the WIMP system it is surprisingly easy to create complex effects within a short period of time.

As we have already seen with the Amiga, all *DeluxePaint II* drawing is done with *brushes*. At the top of the screen there are ten preset brushes varying in size and shape; while they're fine for doing doodles it is much handier to customise your own brushes for complex pictures. It is here that *DeluxePaint II* shows its power. The Brush Grab icon lets you pick up any section of the screen regardless of size and paint with it! Extremely useful when you wish to repeat part of a picture somewhere else. When a section of the screen has been grabbed it can be rotated through any angle, flipped, stretched or bent through either horizontal or vertical planes. Dazzling effects can be created literally in seconds. *DeluxePaint II* doesn't just stop there but allows the new brush to be incorporated in the Pattern Fill command to produce complex recurring patterns.

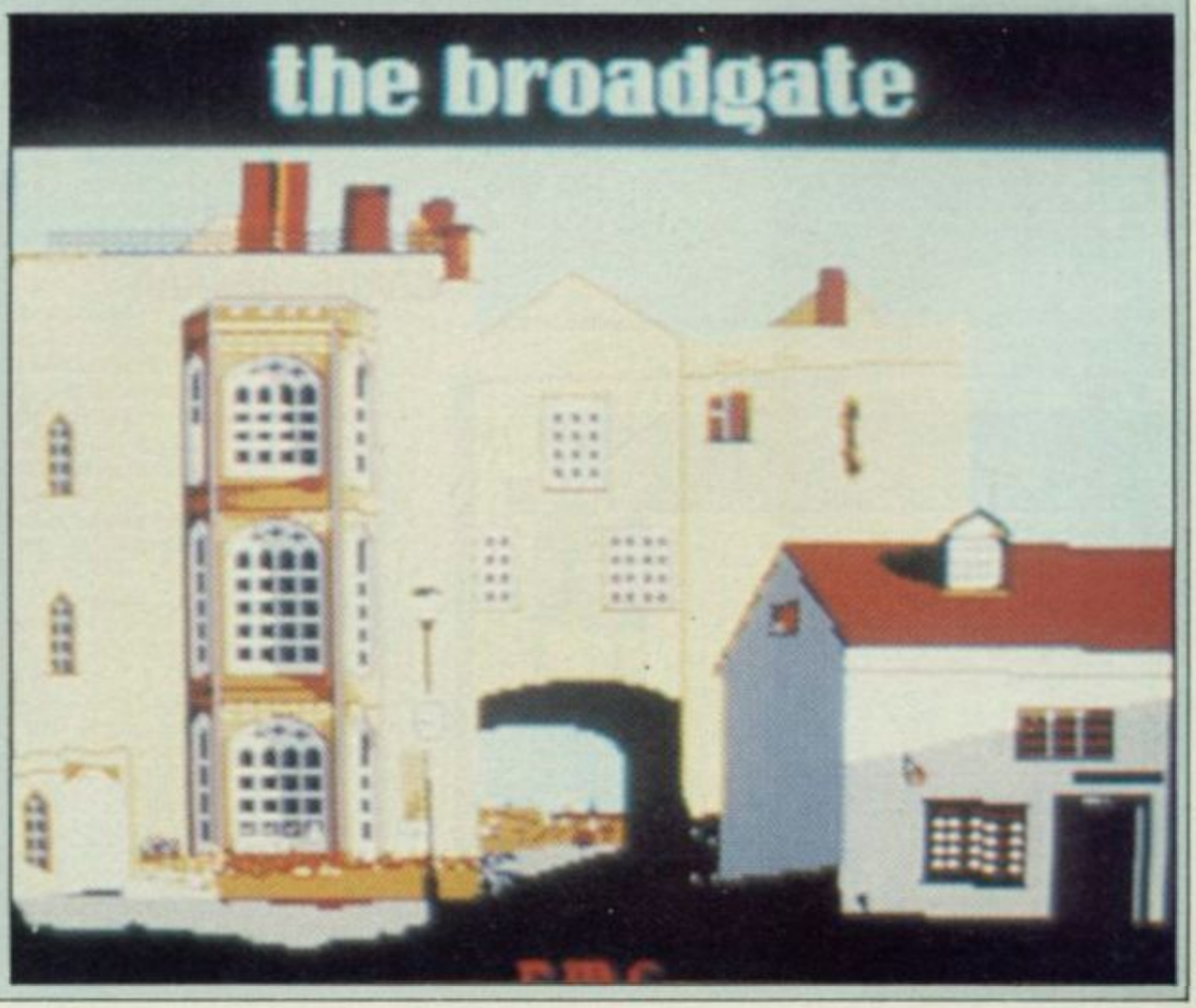
POWERFUL FILLER

One of the most impressive features of the Amiga utility is the versatile set of Fill commands, all of which have been carried over to the PCs. Areas can be filled with any selected colour or a customised pattern; nothing new there but *DeluxePaint II* features the additional fill command called Gradient Fill. It's used to fill areas with a graduated range of colours which merge into each another. The range is specified very quickly from the colour palette, and the degree of graduation between the colours is defined by the Dither slider. I think 'dither', which means to vacillate or act indecisively, is a daft word for it since it is actually a very precise function, but 'dither' has definitely entered the computer graphics jargon, so there it is. At the extreme left, the dither slider produces ungraduated bars of the selected colour range, and moving it further right increases the mixing of the colours, softening the joins.

Next you can select one of three fill styles: vertical, horizontal or horizontal line. Vertical and horizontal fill with the colour gradient up/down or left/right. Horizontal line ensures that each line is filled individually so receiving the full complement of colours in the colour range. The advantage of this quickly becomes apparent when filling a shape drawn in perspective because the end result is a realistically shaded shape. Solid spheres are notoriously hard to draw. Using the circle and gradient fill commands they can be created in no time at all.

BENDING SHAPES

Colours are defined in the Colour



The Broadgate, Ludlow: lean to the left, stand on one leg, squint and you might just make out THE GAMES MACHINE offices through the arch. Using the powerful brush grab feature, repeat images are rapidly inserted without effort.

Palette Requester. The user specifies the colours to be used by mixing levels of red, green and blue together. A spread of intermediate shades can be worked out by specifying the two end colours and selecting Spread. The computer does the rest for you.

The Perspective command is a complex feature which is used in conjunction with Brush Grab to alter the plane of a shape. This is done by altering the *x*, *y* and *z* coordinates of the brush. The perspective centre must be defined then the shape can be rotated about any of its axes.

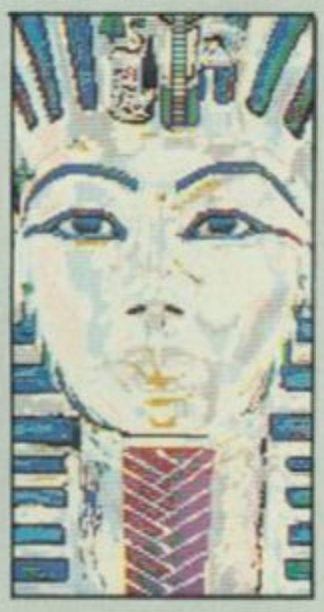
There doesn't seem to be any option that the user could want which isn't catered for. Fine detail can be drawn using magnify mode along with zoom to enlarge any section of the screen to gigantic proportions. Text is be added through the text icon and keyboard in the standard fashion. *DeluxePaint II* comes with several fonts onboard in varying point sizes. Random pixel effects can be created with the airbrush, the range of which is also user-definable. Stencils can be created to create masks and protect areas of the screen from accidental damage, a function which soon becomes essential as pictures become increasingly complex – and very useful in conjunction with the airbrush.

In general there are few differences between between the Amiga and PC versions, certainly nothing major. The exact nature of what differences there are depends on the PC being used and mainly relate to resolution and the size of the colour palette. On those PCs with a restricted colour palette some commands such gradient fill are rather limited. There again if you have a MCGA board fitted with a possible 256 colours in the palette the world is your oyster.

Deluxe Paint II is an exceptionally powerful art utility. It comes complete with a comprehensive manual explaining all the features in depth, along with a series of tutorials to show how they may be used. It is impossible to do *Deluxe Paint II* justice within this short space, other than to say that it's the best art package available for the IBM PC range of computers – and so it should be at the price, which, sadly, is far more than its Amiga counterpart – £99.95.

"Dazzling effects can be created literally in seconds.'

Showing off its potential, the PC proudly displays Tutenkhamen



"Deluxe Paint II is the best art package available for the PC . . ."

Perspective options is one of the many user friendly menus which make art easy on Deluxe Paint II

THE VIDEO EDITOR

Roger Kean, life-long home movie buff, sits down at his editing suite to play with Electronic Arts's £149 new video productions utility.

With what now adds up to a complex suite of programs, Electronic Arts is the first software house to have taken very seriously the numerous, and entertaining, applications that come under the heading of 'media interaction' and provide them in easy-to-use packages. The latest addition to the range is a marvellous – but expensive – suite of programs called *DeluxeProductions*. And it is just that – a video mixing console on computer which allows you to produce full-scale video presentations. Easy-to-use it may be, simple-to-describe it is not! Here, I am taking a brief overview – preview if you like – and in later issues of THE GAMES MACHINE we can go into more detail, especially in those areas where this program, and others, interact with video recording, animation, graphics generation and editing, explaining how it's done and what equipment you will need.

First off, then, what does *DeluxeProductions* actually do? Remembering that it is intended for the production of video presentations (which may be a business application or simply a slickly produced release version of your last camcorded holiday in Benidorm), the program's functions are all geared to the everyday needs of the video enthusiast who wants to create totally on the computer, or just add inventive graphics to existing material. That said, *DeluxeProductions* is likely to turn the average Amiga-owning video watcher into a mad-keen camcorder buff, because here at your fingertips is the kind of graphics generating suite a BBC video mixer would have given his eye-teeth for only a few years ago!

DeluxeProductions lets you animate images (which it calls *objects* – many of which are included as ready-made images, or which can be imported from *DeluxePaint II*.) Objects and background pictures are created and then the objects moved from point to point against the background. There is also the now-standard colour cycling available for colours within an object, or the background.

When one scene changes to another in a more complex manner than a straight cut, it is called a *wipe*. *DeluxeProductions* lets you create a wide range of wipe effects (including a straight cut), from the simple fade-out/-in to more sophisticated graphic effects such as you might see on programmes like *Top Of The pops* – elaborate dual spirals for instance. And wipes can be used for removing an object from its background, or revealing a previously hidden piece of information – as they do every night on the *Nine O'Clock News*.

As this is a video control program, you need to be able to playback what you have done, forwards and backwards, repeating the process as often as necessary to get the feel, and with *DeluxeProductions* you can, simply enough via keyboard or mouse.

DeluxeProductions works only in high resolution (672 x 444 pixels), which is worth remembering if you are going to crate background images on *DeluxePaint II* – however, it does also mean suffering the high-intensity flickering associated with high res unless you own a filter. There's a double buffering technique used in screen updating, which is designed to make the effect of animation appear smoother, and because the end effect is to be of broadcast standard, the overscan system lets the image fill the entire screen, including the edges and corners.

Finally, *DeluxeProductions* allows for chaining of productions (individual segments) to create shows of any length, and by chaining the first to the last, looped productions as well.

WHAT YOU NEED

Clearly, the novice video director is going to be bound by equipment. *DeluxeProductions* will work on the Amiga 500, 1000 (with Version 1.2 *Kickstart*) and 2000, but it does require at least one megabyte RAM; so if you have an A500, you must also have the 512Kbyte internal RAM upgrade or external RAM extension modules and A1000 owners need both the Amiga Memory Expansion Cartridge *and* a 512Kbyte RAM expansion module. A2000 owners can get going straight away, but in all cases, the more you want to create,

***Top:** the Production screen, showing the 12 possible scenes with details of the clips in each scene. Scene 1 is highlighted. Scenes can be quickly copied from box to box by dragging. Double-clicking on an individual scene box takes you to:*
2) the Scene Screen. This shows in greater detail the five possible clip boxes that make up a scene. Objects are detailed at the top of each clip box with the coordinates for movement, speed and pause times, plus the wipe on/off type and duration. Double-clicking on an individual clip box takes you to:
3) the Clip Screen. Here the coordinate parameters can be altered.
***Bottom:** the Colour Assignment Screen. The left-hand double-column gives the 16-colour palette, with colours marked by an X for both background and object. On the right the colour palette is shown, together with colour assignment to either background or object.*

the better off you will be with a hard disk option – in any case, with less that 1.5Mbytes available, you will certainly need two floppy disk drives. However, and here *DeluxeProductions* shows one of its many friendly touches, you can initialise (format) floppies without quitting the program – an occurrence that's likely to be frequent!

Naturally, as colour is a prime ingredient, you need an RGB colour monitor, and once over the excellently detailed tutorials provided with the package, you need *DeluxePaint II* for the creation of new backgrounds and objects.

So much for the video production on computer – and you can use it this way, showing productions just on the monitor (even better if you own a new radio-controlled mouse so you can stand at the back of your 'auditorium' behind the audience); if you wish to put your computer-created masterpiece onto video you need a *genlock interface* to link, in synch, to a video recorder, and a second recorder if you want to playback originally recorded material into the system for manipulation.

Put simply, it works like this: The first VCR plays back the original footage. Its signal goes to the video monitor (TV), where you can see the material unaltered, and also enters the genlock interface. The interface lays the Amiga video image over the top of the original footage. Where there is a background colour in the Amiga image (colour 0 in *DeluxePaint II*), the genlock makes that colour transparent and allows the videotape image to show through. The genlock passes this combined signal onto the second VCR, which records it. Very complicated tricks can thus be easily produced, but at the very least, highly effective superimposed title sequences can be created by setting most of the Amiga screen to the background colour. Imagine rampaging through your own designed text fonts, filled with cycling colours, zapping those through to the opening sequences of *A Life In The Day Of Benidorm – August 1988* – somehow Spain will never seem the same again, even when it rains on the plain.

Since the individual Amiga segments can be exactly timed, and so can chained productions, it's perfectly possible with a timed videotape (especially if you're wealthy enough to own a time-coder) to dump Amiga overlays through genlock onto fairly long sequences precisely where you want them.

HOW IT WORKS

The basis of the program is to let you import previously created background pictures and a series of objects which can be moved around in front of the backgrounds.

A production consists of up to 12 scenes, each with a background picture (or none at all) and each with up to five objects, or *clips*. A clip contains an object and controls its movement, how it appears and disappears. Both backgrounds and objects can be made to appear (and disappear) in a variety of ways through the picture or object wipe menu (horizontal venetian blinds effect, spiral dissolve etc).

Objects, within their clips, are manipulated over the background in one of two ways: through the clip screen a series of gadgets control the *x* and *y* coordinates for up to ten positions on screen, the length of time in seconds it pauses at each coordinate, and the speed at which it moves from one coordinate to the next; but a more direct approach allows you to use the cursor over the background image and move the object physically, clicking the left mouse button for each pause point.

There is also a colour requester which clearly indicates background and object colour selection, so – within the 16-colour palette of high res – you can both modify objects and avoid clashes.

At any stage an object may be viewed, a clip played back, a scene or the whole production to date. During playback, the production may be paused so that it stops after the current clip is implemented to give you time to assess how the parts are working in relation to the whole.

DeluxeProductions comes as a package of four disks: program, two art disks with all the pictures and objects you need to get to grips with the tutorials and a utility disk for font assignment, file moving and hard disk installing. In use two things become clear: first this manual is one of the best of its types I've seen, direct, clear and easy to read; second, once you have tried out the supplied pictures and objects, you are going to have to get busy in *DeluxePaint II*! As with so many advanced utilities, *DeluxeProductions* is only as polished and clever as your artwork. Another rather large point is that careful timing of all the individual elements in a production is likely to make the difference between something that looks like a bad home movie and a professional presentation.

IN CONCLUSION

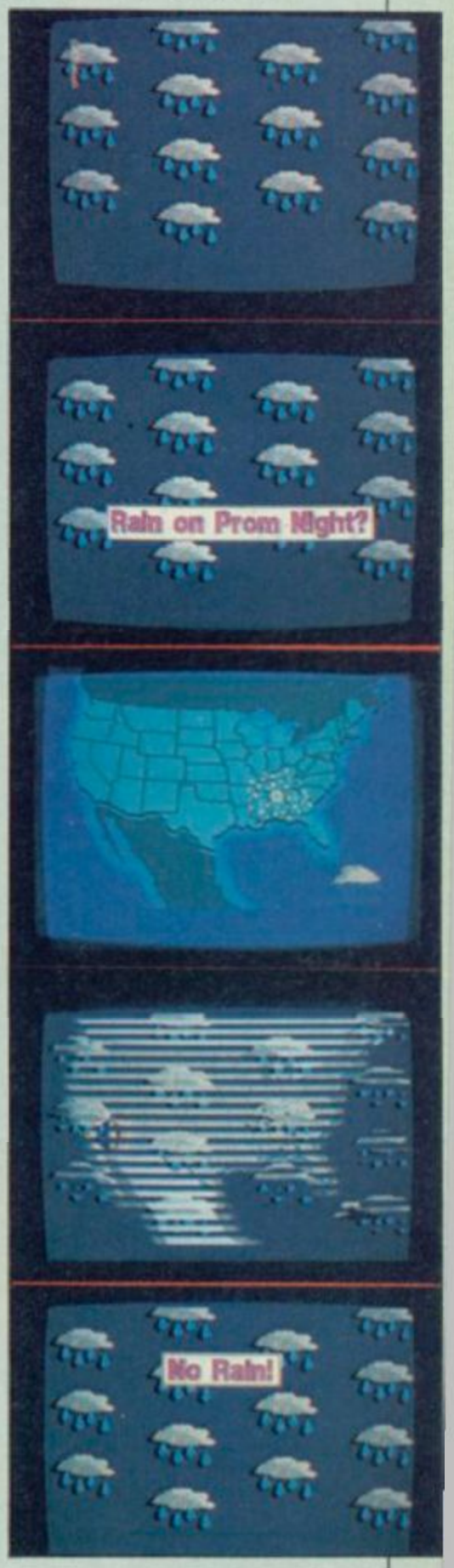
In use, *DeluxeProductions* is sensibly laid out for rapid use once the menu architecture is sorted out in your mind. However, it does take up an enormous amount of memory. If you don't have a hard disk (or two floppies) you will be in for endless disk swapping and the attendant waiting – and even with twin drives, the amount of accessing required from both the art disks and the main program could drive you mad after a while.

It isn't so much a reservation as a caution, but whereas *DeluxePaint II* is a utility for art's sake, *DeluxeProductions* is a tool with little point to it after the initial fun has inevitably worn off if you aren't using it directly for video production (or perhaps neat business presentations to small groups.) And at its very high price, it is the type of utility more likely to appeal to video user clubs than individuals.

DeluxeProductions is released at the end of May, price £149.00.

In future issues of THE GAMES MACHINE we will delve more deeply into the use of video graphics generator programs for different computers.

Five snapshots from a typical tutorial production – a small weather report for North American music lovers: 1) the first scene fades in – a gloomy rain clouds background picture. 2) the first object wipes top-to-bottom asking the question: 'Rain on Prom Night?' It dissolves out in random blocks, then the background does a venetian-blind wipe to reveal: 3) the second scene – a background map – with three clips, shows the finish of clips 1 and 2, first a rain cloud fades in, moves through four locations and settles out to sea, followed by a colour-cycling snow storm, also moving through four locations. Then a sun appears on the West Coast, moves through three locations before: 4) scene 2 wipes into scene three with a venetian-blind effect. 5) the end of scene 3, the background from scene 1 with a new object pronouncing 'No Rain!'



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All screen shots from the Commodore 64 version.

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Amstrad CPC Cassette & Disk

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MSX 64 Cassette

Spectrum 48/128K, + 2 Cassette

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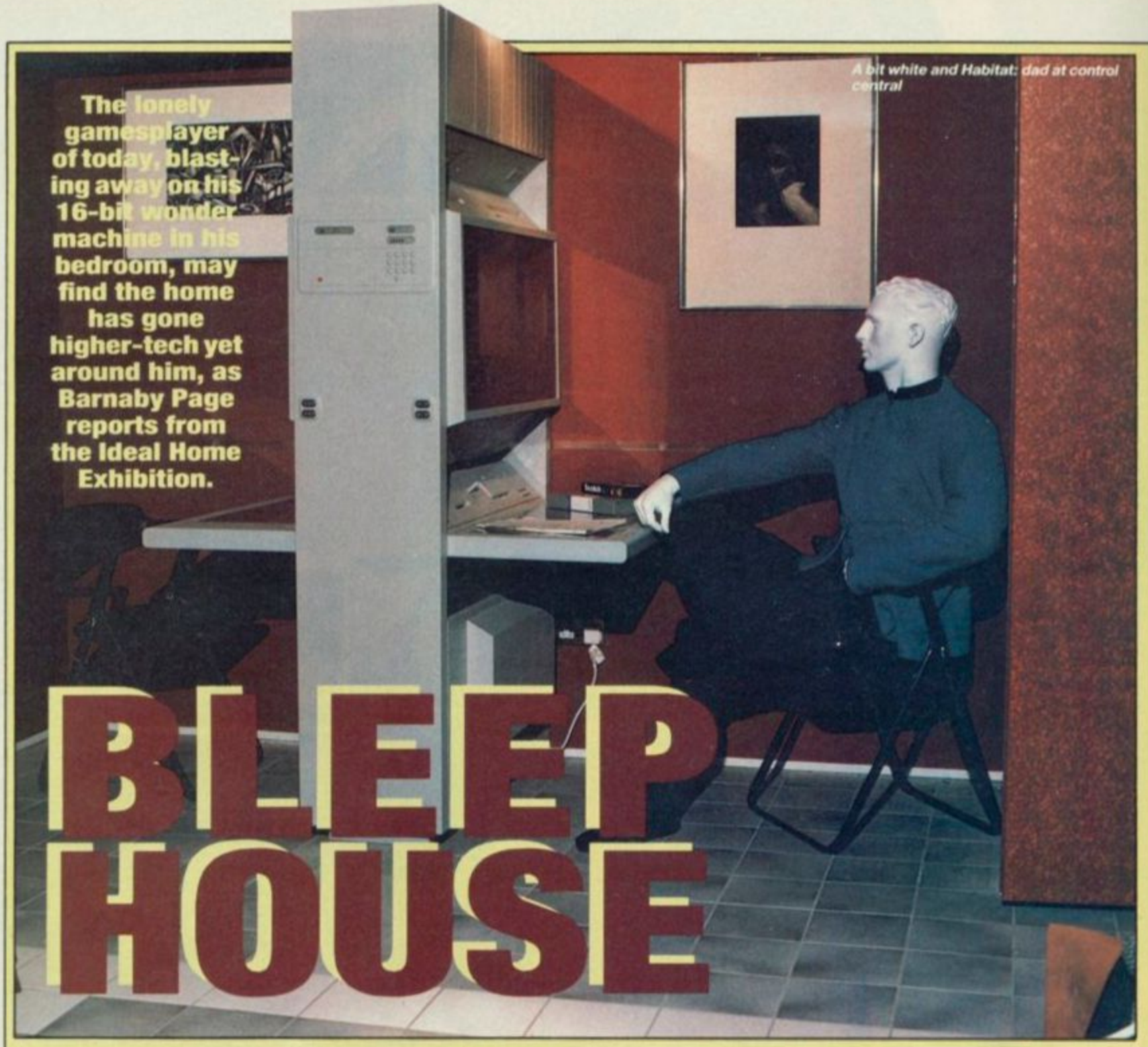
Luge – Daring: a touch of winter madness! Lying prone, feet first on a sled technologically designed to assault time you'll use every muscle in your body to make the most of each straight and curve on a choice of courses.



A bit white and Habitat: dad at control central

The lonely gamesplayer of today, blasting away on his 16-bit wonder machine in his bedroom, may find the home has gone higher-tech yet around him, as Barnaby Page reports from the Ideal Home Exhibition.

BLEEP HOUSE

I have seen the future, and it has no toilet seats.

But the nuclear family will still be mum, dad and two kids, the cat will still be called Moggy and the space-efficient house in which they all live happily ever after will still be broken into – at least according to the soothsayers who designed the Vision 2020 House Of The Future at this year's *Daily Mail* Ideal Home Exhibition.

" . . . we don't need the American dream or a floating future . . . "

Students and staff of the Royal College Of Art (RCA) kept an eye on current technology research when they drew up plans for the house, one of six life-size showhomes at the exhibition held at London's Earls Court Exhibition Centre in March and April.

Emphasising that the basic form of dwellings and indeed the basic activities of living have hardly changed in 2,000 years, proclaiming that 'we don't need the American dream or a floating future', they looked for the likely next steps in everyday tech rather than a science-fiction fantasy.

For instance, they built on concepts of connectivity – with online information, banking, home office and education systems – and umbrella unity, with naively-named Wonderwalls incorporating all the house's hardware functions (heating, washing, security, storage), a House Brain computer for central control, and a portable 'personal communicator' unit incorporating Walkman, filofax, computer and phone.

Vision 2020's personal finance unit – an online home bank which can automatically pay bills – is a direct development of today's experiments with EFTPOS (electronic funds transfer at point of sale, a system which moves money from your bank account to the shop's as soon as you make a purchase).

The house's information network system employs email (electronic mail) and database methods already in widespread use; the national database it accesses is only an extension of today's Micronet and bulletin boards; the system links tomorrow's householder to the outside world with the fibre-optics technology now becoming common, transmitting data as light rather than electrical current.

The prototype Yale Domestic Controller on show will alert neighbours to security problems when the family of the future is on the holiday of the future – just like today's bank security systems.

And a laser chamber in the kitchen, used to cut food into the ornate three-dimensional shapes that today are the preserve of the hotel salad chef, could be feasible when the huge costs of current CAD/CAM (computer-aided design/computer-aided manufacturing) techniques come down.

Even room-temperature superconductors have been

discovered in lab conditions. They're used in the house and the two-wheeled car of the future, which will take power from a strip in the road like a London underground train. (Most known superconductors – materials, usually ceramic, which have virtually no electrical resistance and thus speed up currents dramatically – require temperatures close to absolute zero.)

And the TV recreating odours through 'high-frequency light and sound pulses which are backed up by visual references so that the mind thinks it is experiencing smell' is just a generation away from the Bluebird Envirovision E-VX which Mel Croucher sniffed at in TGM005.

But some of it was less plausible: the holographic encyclopaedia, the heat-sensitive coat with intelligent pocket (THE KEYS AREN'T IN ME!), the magnetic-suspension weightlessness simulation and the personal stereo chips implanted in the body . . . well, at least the stereo's hand-held controller doubles as a knuckleduster.

Designer water: Colin Mortimer designed the glass fountain for Vision 2020's 'atrium'; he's holding a model – the real thing's two metres high

. . . a laser chamber, used to cut food into ornate shapes could be feasible when costs of CAD/CAM techniques come down.

. . . the shower with waist-high sliding door would be very useful for drowning small children.

Indeed, the RCA designers kept their tongues in their cheeks. In the boy's bedroom of 2020, electronic entertainment of the future included a pair of computer-controlled dancing trousers 'capable of connecting rising and falling motion sympathetically to a musical beat'.

At first I thought this was supposed to be the disco practice of the future: drop your pants on the upbeat. But no – apparently the bored teenager of 30 years hence will mope around in his room listening to The Neural Network, or whatever name's top of the 2020 pops, watching the trousers bop. *Grease* seems captivating by comparison.

(Incidentally, the trousers' designer Sean Rudkin writes that 'dancing trousers will be available in different styles to appeal to each of the *three* major gender types' – our italics – suggesting that basic physiology may get a lot different after the millennium.)

There were also hints of Vision 2020 becoming reality elsewhere at the 520-stand Ideal Home Exhibition, amid the elderly matrons trying out upholstery and the posters narrating the tragedy of the House With No Drimaster. Britain's largest consumer show (motto: 'Tomorrow's Ideas Today'), it was expected to attract some 850,000 visitors this year, more than ten times the number at last autumn's *PCW* Show.

The International Stock Exchange was pushing Market-Eye, a new information service using the BBC's Datacast network to report changes in more than 2,500 share and gilt prices *as they occur* – it can run as a standalone system (£1092.50 including VAT) or through a PC-compatible plug-in board allowing multitasking (£667), and only a UHF TV aerial is required to pick it up.

With all its customisation options – for example, it can notify you when a share price reaches a particular point – the system is only a conceptual stone's throw from Vision 2020's information networks.

Italian manufacturer Salvarini Kitchens is developing a computer-controlled security device to monitor and if necessary cut power to kitchen equipment, reminiscent of the Vision 2020 House Brain. And the House Of The Future's remote-control microprocessor-based shower from Caradon Mira is already available.

A touch of Chippendale architecture in Vision 2020 – the space-efficient house of the future, where mum, dad, two kids and Moggy will live in toilet seatless splendour

As for the house itself (sponsored by British Gas), it was a bit white and Habitat, and despite its much-vaunted flexible use of space too much of the first floor was pointless corridor. They really should have remembered a toilet seat, because the ladies behind me in the crocodile of visitors noticed and tut-tutted; and the shower with waist-high sliding door would be very useful for drowning small children.

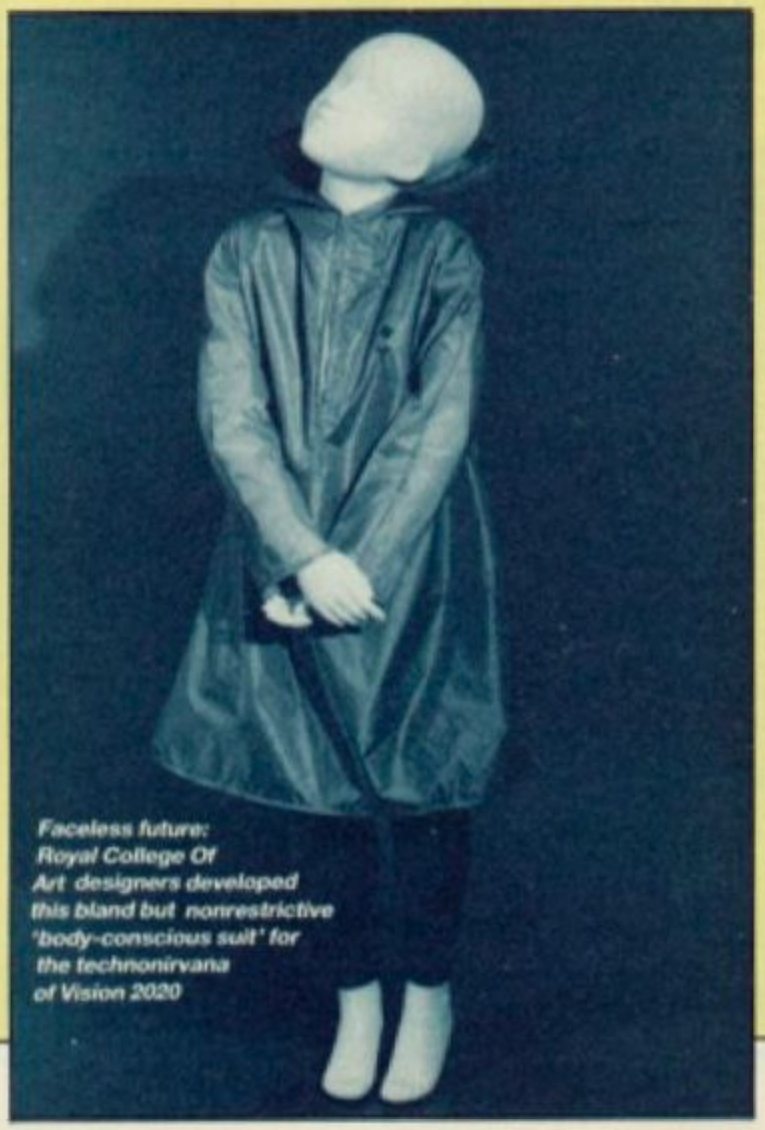
For all that, it was very nice and mum and dad and the kids and Moggy will be very happy there – though the shapely things to come did seem to puzzle one show guide, who told visitors that the double bed was 'a bit like a dustbin, you can take it or leave it' in an official statement of such mind-straining opacity that it made the oracle at Delphi seem user-friendly.

Some ideas should have been taken further. For instance, expert systems could continually modify the information network's front end, so the interface grows to suit the individual user's habits.

If you've fallen into the habit of writing letters every Sunday afternoon, perhaps it could learn to open up a new text file as soon as the House Brain tells it the dishwasher's been switched on after Sunday lunch. The system would become like a much-used reference book, falling open at the best pages.

Perhaps. In the meantime, why not come upstairs and see my room-temperature superconductors?

FUTURE TECH AT EARLS COURT:
PC Show, public days September 16-18 1988
Daily Mail Ideal Home Exhibition, March 7-April 2 1989



Faceless future: Royal College Of Art designers developed this bland but nonrestrictive 'body-conscious suit' for the technonirvana of Vision 2020

THE COMPATIBLY RECURRING DREAM

MSX is enjoying its second incarnation, yet compared to the first time around, the machines are shrouded in promotional silence, so to open up the crack a touch, here is THE GAME MACHINE's guide to the range, the software and some tips.

There were those who claimed in the manner of time-honoured prophetic visionaries, that September 1985 would mark the end of the computer-world as we in Britain knew it. The fuss was about a new series of Japanese wonder machines – the MSX system. Europe stood poised throughout the summer, as an unprecedented publicity campaign built to its peak for the autumn launch. Magazines reviewed the range of machines, extraordinary claims were made, adverts appeared and no less than two MSX magazines were launched to herald what was, after all, only another Z80 computer system.

And it never happened.

But the dream didn't fade, it just got upgraded, and it has been Kay Nishi – Japanese inventor of the original MSX system – who has nurtured the improvement.

What was different about MSX, however, was that – in a market dominated by egocentric geniuses all pushing their own notions – it was really a compatability standard. And before looking in more detail at MSX-II computers, it is worth restating the background to MSX-I and its philosophy. The idea: a range of machines between which software and hardware was freely exchangable, regardless of make or model, so that *Nemesis*, which ran happily enough on your Philips MSX, loaded on the Sony, Toshiba and JVC machines, and vice versa. It was a captivating dream, that data should be passed on from person to person without machine-compatibility restrictions.

Of course, it relied on everybody owning an MSX computer, but in 1985 that seemed a strong likelihood, because the wide range of models available gave consumers the choice they required – for instance the Yamaha MSX computers capitalised heavily on the musical product support that Yamaha had built up over decades of manufacturing interfacable instruments. The MSX standard stipulated – and still does with MSX-II – that all machines in the range must be compatible.

THE REMOTE HOME

The fact that this was not so – retailers complained that tape-based games didn't always work across the range – plus the high retail prices, ensured the range did not attain the success it might otherwise have enjoyed when first released in this country. On top of that, astonishingly, the promotional campaign bombed. British computer buffs were just not interested in either the machine or, it would appear, Kay Nishi's original hope of incorporating MSX machines within household appliances. He envisaged the home being run efficiently from a central control unit. In fact MSX chips *were* fitted into many everyday appliances – videos, telephones etc – to ensure compatibility, so that, for instance, domestic electrical appliances could be preprogrammed or even operated remotely from work via the telephone – useful for adjusting the central heating should a sudden temperature drop mean a cold home-coming otherwise.

The Japanese are not usually slow in introducing new technology, so why produce a second MSX generation, another 8-bit machine, when 16-bit is on the increase? One theory suggests that the Japanese market is not ready for the larger machines because their 8–bit machines still have masses of capabilities which they intend to exploit. And their enthusiasm and loyalty to the MSX range was displayed recently with the sale in a single day, of over a million units of a game called *Dragon Quest*.

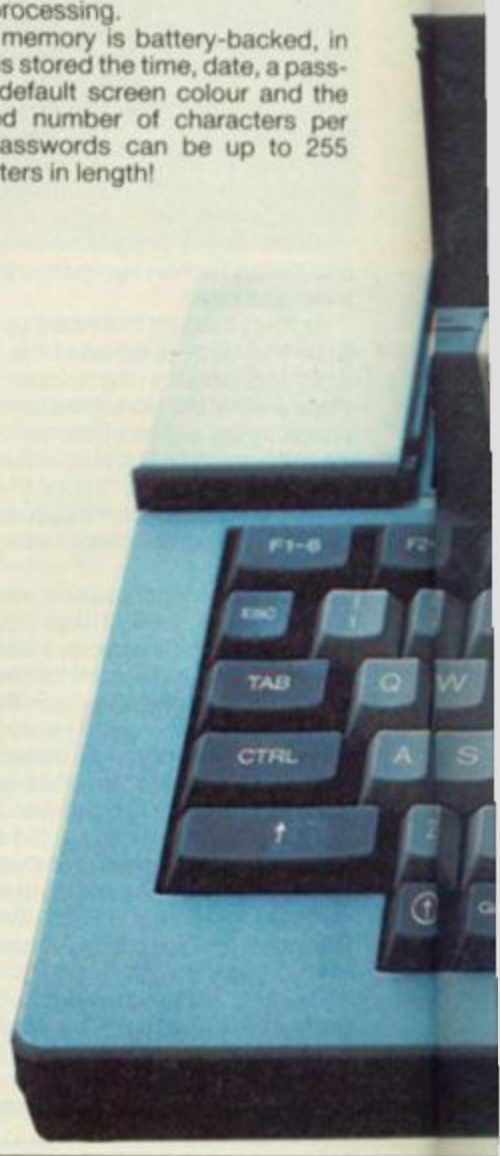
In a manner solidly in line with their automobile marketing, the MSX-II top-of-the-range models include every extra the user could want, from twin-cartridge ports to disk drive, from a mouse to two joystick ports and even a reset button. Latest models now include a new video chip which works together with the Z80 to create extremely fast graphics, even for programs written in BASIC.

A CLOSER LOOK . . .

The Sony HB-F700D

The Sony MSX-II 'Professional' has a total memory of 468K – 64K ROM, 128K Video RAM and 256K RAM. It has a detachable keyboard including a numeric pad. With a built in 720K 3.5" disk it is compatible with all MSX-I BASIC commands. It incorporates 9 screen modes, hi-res 512 x 212 pixels, 8 multi-coloured sprites per line, 256 sprites per screen, 512 colours and an 80-character display for word processing.

The memory is battery-backed, in which is stored the time, date, a password, default screen colour and the required number of characters per line. Passwords can be up to 255 characters in length!



Because of its large memory it is possible to define a RAM-disk onto which can be loaded several different programs that may be run individually without the necessity of reloading.

In an attempt to cover every option, this machine incorporates twin-cartridge slots, two joystick ports, printer and tape sockets, an RGB output for colour monitors and a TV connector. Included in the package are a mouse, Microsoft's MSX-DOS and Sony's HYBRID–DOS – a Gem-like icon driven Disk Operating System utilising all available memory and hi-res graphics. Hybrid has multiwindows, a pop-up calendar, diary and notepad along with four integrated business programs. Also included in the package are a Word Processor, Spreadsheet, Database and Graph utility.

Retail Price (Knights TV & Computers, Aberdeen): £379+ VAT

THE PHILIPS NMS 8220

The NMS 8220 incorporates all the important MSX-II features, 64K RAM, 128K Video-RAM, 80-column text display, simultaneous display of 256 colours and extended sprite functions. It has two on-board programs as standard: the MSX 'designer' graphics program and the extended MSX BASIC Interpreter. Although it is fully compatible with MSX-I software and peripherals, the reverse is not always true. Other features are two joystick ports, twin-cartridge ports, RGB connector, TV connector, cassette and parallel printer ports and a reset button.

The full package includes the computer, TV cable, MSX Basic and an MSX designer manual.

If you can't afford the very reasonable highstreet price, have a go at our competition on page 26 of this issue – it's your chance to become the lucky owner of one of these great machines.

Retail Price (Knights TV & Computers, Aberdeen): £299+VAT

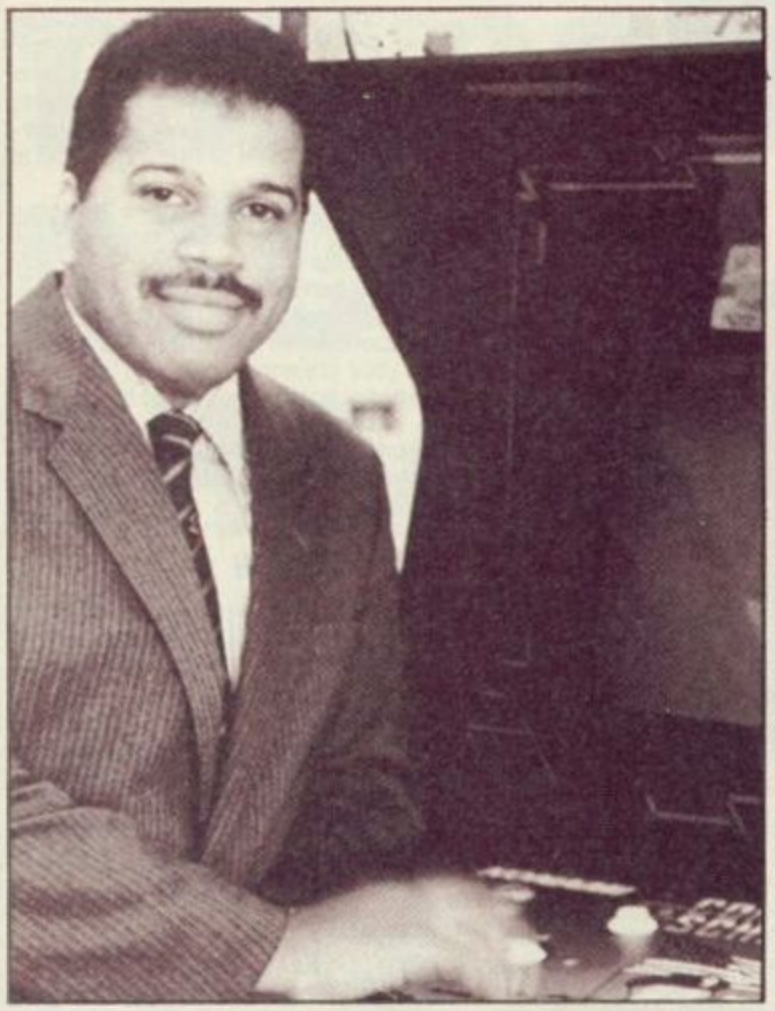
THE RANGE

There are only two makes of MSX-II available in the UK, and even this sorry show is only thanks to the support of individual retailers who buy machines from Europe. Philips and Sony are the two companies and they each have several models within their ranges – although most of them are the basic machine with add-ons.

Here is an idea of what is available at both ends of the range:

SONY HB 700D
With 256K RAM and 128K Video RAM, the HB 700 uses two 720K Diskette drives. It runs the Hybrid operating system which lets you use the machine for business projects – Spread Sheet, Database and Word Processing.
Retail Price: £299+VAT

PHILIPS HB 80
Including two 720K Diskette drives, this package comes complete with Genlok and Digitiser which makes possible the 'grabbing' of TV or video pictures for customisation. Yorkshire Television use this system for some of their programmes' special effects.
Retail Price: £799+VAT



KONAMI – MSX SUPPORTERS

Konami Ltd was the first Japanese arcade company to set up in Europe (which happened in 1984.) What the Japanese directors wanted – apart from establishing a base for their coin-op activities – was first-hand information on assessing MSX potential in the UK and Europe. *Track And Field* pushed Konami to the forefront of the arcade market and, with this success, they began programming for the UK MSX market.

Luther Der Gale assisted in researching the project and spearheaded MSX cartridge sales and distribution into Europe. He was determined to establish Konami as a major force on all formats and developed the licensing of Konami conversions to reputable software houses – Ocean being probably the best known. Konami's *Coin-Op Hits* was a highly successful compilation and sold well for more than 12 months.

In 1986 Konami launched its own label, achieving success on the three major 8-bit formats, while still maintaining its position as the largest distributors of cartridge-based MSX software in the UK. The company has recently developed a custom-made sound chip designed specially for most of its forthcoming MSX game releases. It was designed specifically to match audio effects found in arcade machines and utilises up to eight simultaneous voices. Sounds are generated by inputting single waves into the data and playing them back. In this way almost any type of effect or instrumental voice can be created. The first game to use this new chip was *Nemesis II*. There are over ten minutes of tunes in the game, containing a staggering 32 sounds for both effects and music, plus a further nine effects for the 'digitised' drums.

Luther de Gale, the man in Britain who helped found Konami UK

GAME TIPS

MSX-II software has constantly impressed the TGM reviewing team. The first game we looked at was Infogrames's *L'Affaire*, which scored a very respectable 82%. In TGM**002** we reviewed *Metal Gear* and *Vampire Killer* – both Konami cartridge games which attained 79% and 69% respectively. The there was a hiatus: THE GAMES MACHINE lost its MSX – which had been on loan! – for the next few issues. The outcry from MSX users was impressive, however, and we felt we had to replace it as fast as possible. Enter the Sony, just in time for TGM**006** and the reviews of *F1–Spirit* and *Usas*, both scoring in the high eighties. *Salamander* is reviewed in this issue, another game full of the detail we have come to expect from Konami cartridge software.

In fact there are some fascinating traits which characterise the better Japanese software. Most Konami games contain strange idiosyncrasies: not only are there passwords for many of the games, enabling the player to cheat, but some software is interchangeable. Plug *Nemesis II* in cartridge port one and *Penguin Adventure* in port two, turn the machine on and – hey presto! – amazingly the Metalion starfighter has turned into a cute blue penguin blurting deadly red hearts at its alien enemies. *The Maze Of Galious* used with *Nemesis II* allows you to restart the game complete with the weapons you had when you died simply by pressing the M key.

Doubling *Nemesis II* with *Q-Bert* has the most useful effect: by pausing the game and inputting a keyword the following happens:

KEYWORD	EFFECT
Nemesis	Advance one level
Lars 18th	Armed to the teeth
Metalion	An all-round shield surrounds and protects your ship

In fact there are several MSX-II tips we've put together . . .

MAZE OF GALIOUS

Spell tips:

World	Spell	Weapon
One	Yomar	Arrows
Two	Elohim	Arrows
Three	Hahakla	Fire
Four	Barechet	Mines
Five	Hedtymed	Arrows
Six	Lepha	Fire/Bible
Seven	Nawabra	Ceramic Arrows
Eight	Ascher	Rolling Fire
Nine	Xymoleh	Ceramic Arrows
Ten	Hamalech	Arrow/Cross

How to find the Cross:
Go to the entrance of World 3 and, staying in the Castle, go down one room. Take the bottom left exit and continue down until you reach a room with two small platforms, one above the other. Fall to the lower platform, jump up to the left and strike the wall with your sword whilst making a controlled landing back to the platform. Repeat this three times and a small passage, containing a coin, should appear. Go to the left hand side of the passage and jump towards the wall so that you appear in it. Walk left through the wall and, when halfway along it, jump. Continue going left until you reach a lava pit with a rock on the far side. All you have to do now is traverse the lava – the cross is behind the rock.

On World 5 try waiting around the edge of the water if you're having trouble swimming.

F1–SPIRIT

Try the following passwords;
HYPEROFF allows you to complete pitstops in the minimum time
ESCON: allows you to quit the current race – press F5
ESCOFF: cancels the above
MAXPOINT: allows you to race on any track without having to qualify – The Game Master cartridge has the same effect

PENGUIN ADVENTURE

This cute game is ultimately frustrating – finding Warp Holes is the key to success; here are some distances:

Level	Dist
One	237m
Six	145m
Nine	335m
Thirteen	356m
Fifteen	078m
Eighteen	418m

On level 1, move to the right, in line with the fish-holes. Jump these holes and the bonus wings appear. On level 12 use Santa's hole (a distance of 183m) to obtain the map.

THE KONAMI SOFTWARE CLUB

The club was set up to bring micro users and arcade fans the latest news about Konami and their products. The KSC Newsletter is published each month and reviews arcade and computer games, examines various machines and informs its readers of new products and ideas. They also run a telephone helpline set up to answer users' questions about Konami software, inform callers of forthcoming games and and answer queries about the software club. The telephone number is 066 56789.

With thanks to Dennis Hemmings of Nemesis, the Konami Software Club, Nightdare LTD and Graham Knight TV & Computers.

FEAR

fear *n* **1** an unpleasant often strong emotion caused by anticipation or awareness of danger **2** anxiety, solicitude **3** profound reverence and awe, esp towards God **4** reason for alarm; danger

fear *vt* **1** to have a reverential awe of *<~ God>* **2** to be afraid of; consider or expect with alarm ~ *vi* to be afraid or apprehensive

DO YOU DARE ENTER . . .

FEAR

FEAR is a stunning new magazine. A publication that will chart a wondrous course through the thrill of Fantasy, the dark dread of Horror and the mindblast of Science Fiction. These three related genres make up today's biggest single interest area in fiction, films and video, and now the essential reading companion to this absorbing world is here at last. A magazine created to reflect the atmosphere and colour, the frisson and savagery of the imagination of the world's great writers and directors.

In *Close Encounters Of The Third Kind*, when the gathered scientists all stare skywards as the vast mothership regally descends, the emotion writ large upon all their faces is one of **fear**. And yet, clearly, they are not terrorised, horrified or even frightened – they are in awe; and later, their state of awe turns to one of reverence at the astonishing event they are witnessing.

Yes, **fear** does mean the state of mind traditionally associated with the word, but it also implies awe, reverence and – most importantly – wonder.

FEAR is a publication that will keep you informed, is bound to make you think – and will definitely chill your bones. It will be Britain's glossiest and most stylish Fantasy and Horror magazine ever – so let it gnaw its way into your life . . .

THE WORLD OF FANTASY AND HORROR . . .

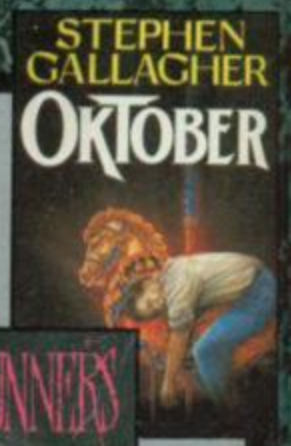
FILMS – VIDEO

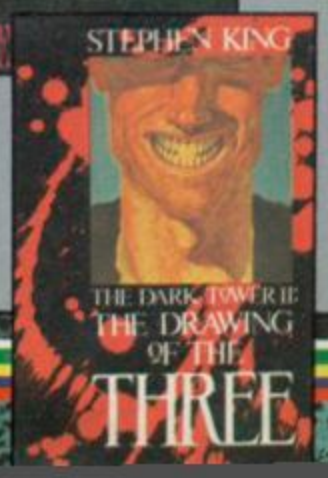
Fantasy films for the cinema have been big box-office since *Star Wars*, and with the advent of the video player, hire cassettes and masterpieces such as *Halloween* and *Hellraiser*, it has grown into a multi-billion dollar affair.

With special correspondents already in position in the United States, **FEAR** will bring you the very latest production news, interviews, profiles and – most importantly – reviews on films well before they are available in the UK, with the emphasis on plots, implementation, special effects and the creative drive of the directors and actors behind them. And that's not forgetting the many productions which never even reach the cinema, intended as they are for direct video distribution – another crucial area in which you will be relying on **FEAR** to let you know what's happening, when, how it was done and by whom.

BOOK REVIEWS

Films may be the most obviously visual outward expression of the Science Fiction, Fantasy and Horror genres, but the heart and core is its literature. Hundreds of titles are released every year, forming one of the largest slices of the book market – yet there has been almost nowhere for you to read reviews – until now. **FEAR** will be in the forefront of bringing you authoritative reviews of the very latest fiction from both sides of the Atlantic, often using well-known novelists as critics. And **FEAR** won't be ignoring the news element, letting you know what to expect and look out for in the world of books.

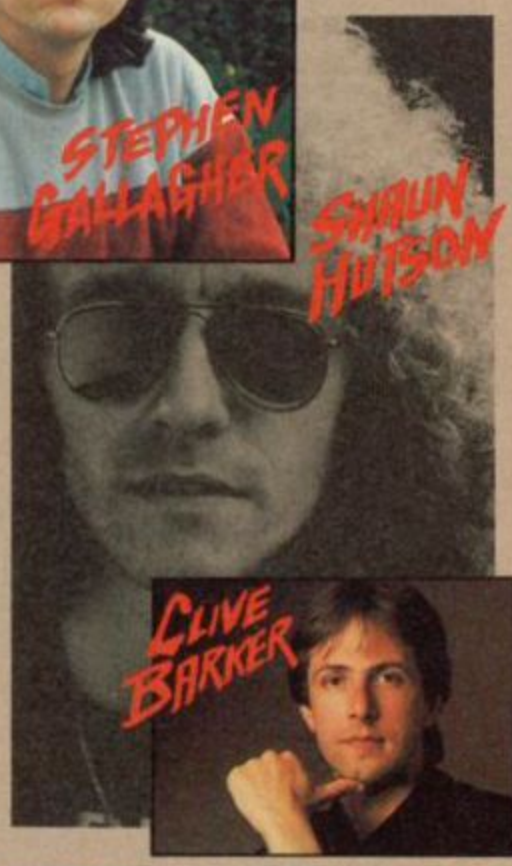




FEAR

FICTION

One unique aspect to **FEAR** will be immediately apparent: fiction. For the first time in years, **FEAR** will represent a vital outlet for short stories. We are commissioning internationally famous, best-selling novelists from the Fantasy, Horror and Science Fiction fields to write short stories for **FEAR**. Most of these authors love writing short stories, yet have very few publishing outlets for them and there is a huge readership begging for them. You can certainly expect to read stories from the pens of writers such as Shaun Hutson, Clive Barker and Ramsey Campbell in the first few issues. Not only the famous are catered for though, **FEAR** will also be looking for contributions from outstanding young writers who have not yet had the opportunity to publish – a chance, perhaps, for you to shine as well!



In your first issue:

THEY LIVE!
Film maker John Carpenter on his latest offering PRINCE OF DARKNESS

SKIPP and SPECTOR
Brilliant new writing duo from the States, tell all on their new book THE SCREAM, and their collaboration with CLIVE BARKER on the forthcoming film THE BRIDGE

OKTOBER
Best-selling author STEPHEN GALLAGHER quizzed on his new hardback offering and VALLEY OF LIGHTS – out in paperback

NEIL JORDAN
The creator of COMPANY OF WOLVES on his latest offering

CUT!
We find out how the British Board of Film Censors decides on what we are allowed to see – and your chance to air your views!

FEAR FICTION!
When little girls want revenge, teachers should beware
THE EYE OF CHILDHOOD
Ramsey Campbell paints in blood . . .

Time-telling can go wrong for
THE DANDELYON WOMAN
SF terror from Nicholas Royle

And a mystery story (he won't tell) from **Shaun Hutson**

AND THEN THERE'S:
PAGES OF REVIEWS covering the latest film and video releases and book launches
NEWS AND PREVIEWS from both Britain and the States on novels and films we can expect to see later this year
HOW TO MAKE A MOVIE COMPETITIONS galore, with some very strange and exciting prizes
FAN CLUB profiles, news and events guide and introducing:
THE FEAR FACTOR – start of a regular series where famous people tell of their terrors

CLASSIFIEDS

You will want to contact thousands of other like-minded readers with low-cost small ads, whether you want to buy, swap or sell something, find pen-pals, discover access to private collections of knowledge for research purposes, advise others of club and society activities or let them know about your fanzines. **FEAR**'s reader classified section will probably be the best way of doing it, and you can place a small ad for as little as £3.00 for 35 words (and a better deal exists for **FEAR** subscribers). The Personal classifieds are not open to trade advertising, but small ad semi-display rates are available on request.

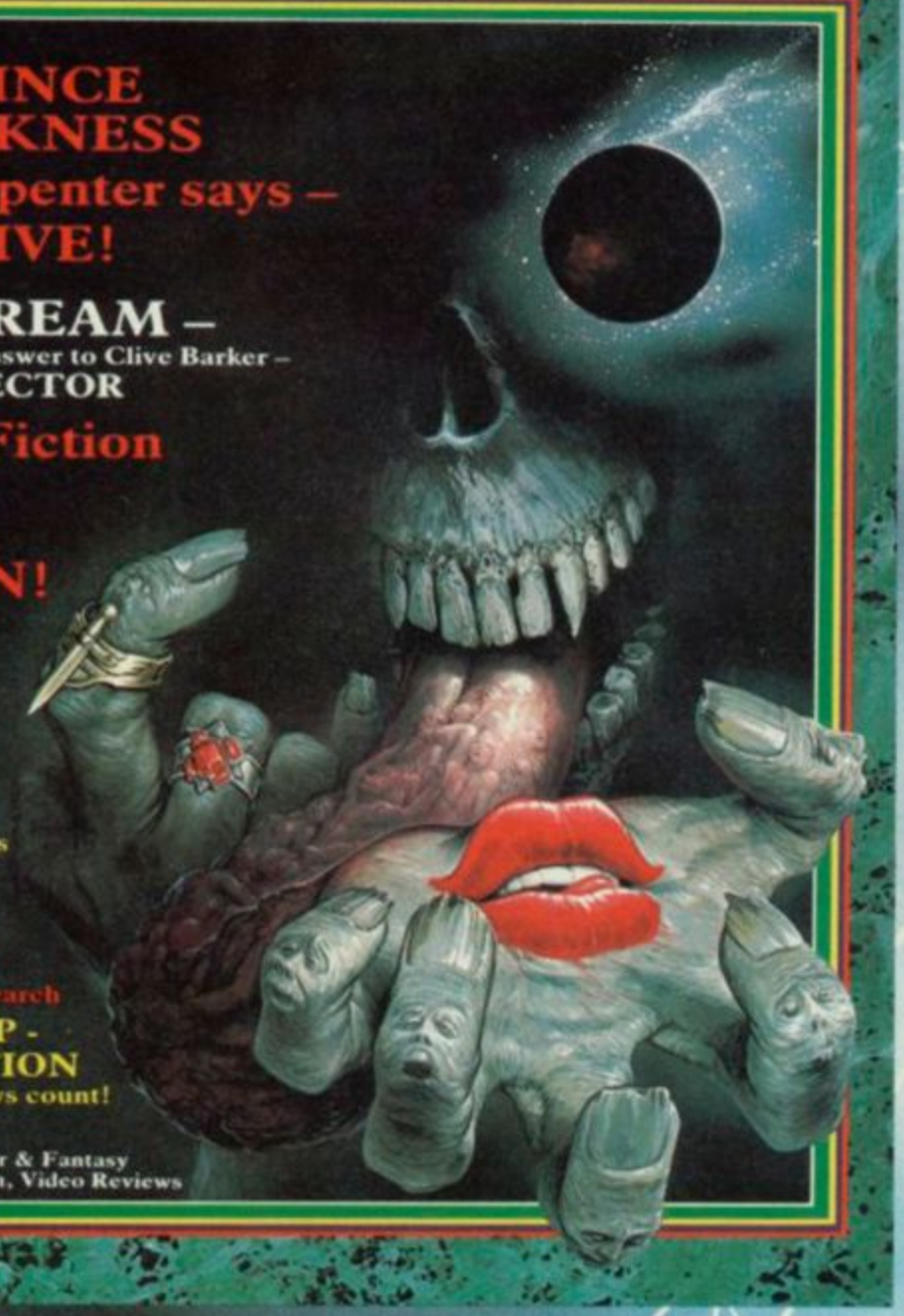
FEAR is a bi-monthly magazine from Newsfield, publishers of Britain's top computer titles CRASH, ZZAP!64 and THE GAMES MACHINE, and edited by John Gilbert who has been reviews editor for SINCLAIR USER, regular contributor to THE GAMES MACHINE and now brings his considerable knowledge and love of Fantasy and Horror to what will prove to be the most exciting and vital new publication this year.

FEAR is a not-to-be-missed experience in terror and awe, wonder and excitement, and it starts on June 16, priced £2.50 – with extra special subscriber discounts – see the details!

No.1 JULY-AUGUST 1988 A NEWSFIELD PUBLICATION

FEAR

THE WORLD OF FANTASY AND HORROR £2.50



THE PRINCE OF DARKNESS
John Carpenter says – THEY LIVE!

THE SCREAM –
Meet America's answer to Clive Barker –
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DO YOU DARE ENTER . . .

FEAR
On sale from June 16

HELLO SAILOR!

Join the Navy with Accolade and experience some real Power At Sea! Wave after wave of prizes!

Accolade – the American software house currently marketed through **Electronic Arts** in the UK – is well pleased with its latest bout of nautical gamesmanship, ***Power At Sea***. This strategy arcade game recalls the events of the assault on four Japanese bases in the Philippines during World War II. The success of the game has spurred Accolade to join forces with the **Royal Navy** to offer five lucky GAMES MACHINISTS (and chum or parent), a day at sea on a modern warship, sailing from Portsmouth.

The Royal Navy – the second largest within NATO – is not well known for running day trips, which makes this competition the chance of a lifetime. However, the generosity of Her Majesty's forces knows no bounds, and EVERY entrant will receive a Royal Navy booklet – 42 pages jam-packed with nautical information to injest and pages of pictures to look at.

To be in with a chance of winning a day sailing the ocean blue, we've concocted four suitably nautical questions for you to answer and a sentence to complete. Write the answers on a postcard or the back of a sealed sailor and send it to: **ALL AT SEA COMP, THE GAMES MACHINE, *PO Box 10, Ludlow, Shropshire SY8 1DB*** and make sure your entry is in dock by June 18. Our standard competition rules, detailed in the magazine, apply, and anyone found swerving off course will be thrown in the brig and given a [illegible] of the cat-o-nine-tails.

1. Which one of these ships is not a Frigate?
   a) HMS Andromeda
   b) HMS Broadsword
   c) HMS Ludlow

2. What is the length of the Royal Yacht Britannia?
   a) 125.7 metres
   b) 125.7 yards
   c) Very long

3. Which Naval missile is also the name of an Atari ST game?
   a) Airball
   b) Sidewinder
   c) Black Shadow

4. What is the youngest age someone may join the Royal Navy as an officer?
   a) 17
   b) 17½
   c) 18

Complete the sentence: I would like a day out with the Royal Navy because . . . (in no more than 25 words).

DANGEROUS SECRETS

There is a conspiracy of silence behind the games business that could well threaten its entire future – while you pay the cost of software protection, some software houses are paying the pirates, as John Gilbert reports.

Software pirates, who duplicate or steal computer games or concepts, are regarded as a major annoyance by software houses. In the main, pirates have one aim: to make copies of professionally released titles, usually with the aim of passing on product for profit. These people are rogues; bent on making a quick buck out of our industry, they sell cheaply to anyone. Software publishers, incorporating protection devices into their programs which are expensive in memory and monetary terms, want to catch all of these software thieves.

Don't they?

Wrong.

According to some well known software houses pirates are often encouraged to leak new games onto the market, games which haven't even been playtested. The games, usually supplied on disk, find their way out to individual programmers, software developement teams or publishers, and members of the public.

The reason behind the risky business of deliberately feeding pirates is, as I'll show later, one of economics and marketing strategy. First, though, to understand the conflicting interests – sometimes within the same software houses – it's important to know what's been happening in this less than legal business and what the computer community is doing to prevent it thriving.

TEMPTATION

Piracy has always been a problem in the music industry and it is perpetuated in a never-ending cycle. People want the music, but not the exorbitant prices some record producers charge. On the flip-side record companies claim that they have to keep prices high to cover the losses in sales that organised piracy causes.

The same is true of the software industry, although its problems started only three years ago. As the standard of cassette games started to rise so did the understanding of would-be pirates who saw a new market and use for their tape-to-tape recording decks.

Record industry bosses see the easiest way around the problem as a large levy on blank audio tapes. The money raised would partly go to the government and partly to the sufferers of piracy. Producers could concentrate on their sounds and record prices could go down.

SOFT AND HARD MEASURES

Software houses, however, have tackled the problem from a technological angle, with hardware, software and hard/soft solutions. A hardware-based protection device is called a **key** or **dongle**. It contains a ROM memory chip – not easily copied – on which is stored one or more security numbers which the computer checks on loading to see that the ROM is inserted and that it contains the correct code – if not, the load is aborted. Alternatively, a chunk of the program could be stored on the ROM and if the computer can't find it you won't be able to play the game.

"... pirates are often encouraged to leak new games onto the market ..."

Other hardware solutions include the credit card reader, which reads a program from an uncopyable plastic card, and ROM cartridges similar to those used on the Sega games console. The latter, unfortunately, *can* be copied because the game code is loaded into the main computer RAM and is accessible to competent programmers.

All these hardware solutions are expensive for the production company and, ultimately, the customer. Retailers, such as WH Smith don't like them either because the games cannot be stored in slim cassette boxes.

SOFT OPTIONS

The other alternative is software-orientated protection: easy on the pocket but hard on memory. A vast number of techniques exist, but The Limited Back-up Copier, Hidden Field, TurboLoad, Colour Code and Novella Protection have predominated.

TurboLoad was among the first techniques introduced to protect cassette-loaded software. Programs are stored on cassette as a series of audio impulses which are loaded into the micro at a standard rate. A control program held in the computer's ROM – part of its operating system – determines both SAVEing and LOADing speeds. That speed is immutable because the operating system cannot normally be changed. It is, however, possible to produce an ammended version of the routine, called a Patch, which can be loaded into RAM to alter the SAVE/LOAD speed. The higher the LOADing speed, the less easy it is for the computer to understand it, and on a bad-to-medium-quality tape audio

impulses become muffled. The result is often a tape loading error if you try to copy a program directly from one tape to another because the sound quality is degraded.

Unfortunately TurboLoad has been disastrous for some software companies. If tape standards used to make original recordings are low, whole batches of games can go out for sale without anyone realising the fault until tapes are returned. Problems also occur if a computer's tape head is out of alignment and not picking up a clear signal. When the Spectrum+2 was launched by Amstrad some games would not load because of tapehead misalignment on the machines. Some were later recalled, but in the meantime software houses had to record two versions of a game on tape, one with and one without TurboLoad – defeating the object!

Limited Back-Up Copier and **Hidden Field** techniques can only be used with random access storage devices such as disk drives. Indeed, Limited Back-Up uses the Hidden Field technique to produce a disk of software which can be copied, but only a predetermined number of times. When the disk is booted a patch loading program enters the system and takes control. It stores a counter in a Hidden Field on the disk which cannot be accessed by an ordinary user or listed on the disk's directory. The counter keeps track of the number of times the disk is copied, and when the maximum allowed is reached, it either crashes the program or tells you that you can't make any more back-ups. And that's it: you won't be able to make any more because the copies the original program makes exclude the copier option. If all your copies fail, you have to go back to the manufacturer – who may give you a new disk, though not so compelled by law.

The Hidden Field method can also be used to store a code number on part of the disk which cannot be accessed by the player and will not normally be copied from one disk to another. The game occasionally looks for the code word and if it isn't there it crashes the computer.

Colour Code Protection, developed by Software Projects, and first used on the classic *Jet Set Willy*, takes us back to tape loading on the Spectrum and Commodore 64. A card emblazoned with a grid of colours was included in the package. The grid edges contained an alpha-numeric sequence to refer to the colour squares by row and column – for instance, A8 might refer to magenta on the Spectrum. Before game loading, five references were displayed on screen and you typed in their matching colours using the Spectrum's colour keys. If you failed to get the sequence right by the third try the game crashed.

Novella Protection, developed by Anita Sinclair of Magnetic Scrolls for use with Rainbird's adventure games, is similar to colour coding but uses words from a short novel within the package rather than a sometimes difficult-to-use grid. You are asked to look up a specified word in a particular line, paragraph, and page within the book. Again, you get three attempts to get it correct, otherwise the program crashes.

"British software companies use fingerprinting methods to identify culprits . . ."

The technique is adequate but open to abuse. Telecomsoft, of which Rainbird is a part, admits that the novellas can be photocopied, because the book pages are white (instead of blue or red which cannot easily be photocopied), but the company is confident that it has cut down the number of pirated copies of *Jewels Of Darkness* and *Knight Orc*.

LENSLOK FAILURES

Telecomsoft was introduced to protection problems when it started using Lenslok on its Firebird range of cassette games.

Lenslok is a hardware and software combination. The hardware comprises a small stippled plastic distorting screen. Each time you load a game the protection part of the program produces a scrambled image of letters or numbers on the screen. The characters become unscrambled when viewed through the Lenslok screen, and if you type that letter into the program, the game loads.

Unfortunately the device is *too* clever. People with glasses find it difficult to decipher the coded images and those unused to it also have problems recognising the characters.

As if Firebird wasn't faced with problems enough, the company's launch of *Elite* on the Spectrum proved a spectacular disaster, and all because of a mistake with Lenslok. Paul Hibbard, the current publisher at Telecomsoft, says: 'Lenslok was quite a good idea, but part of the problem with it was the name it got, which was worse than it deserved. Some people implemented it badly and, in our instance with *Elite*, we got the packaging wrong.'

For Rainbird, the company which is most practically concerned about software piracy in Britain, Novella Protection grew out of the Lenslok controversy. Hibbard says: 'It came about first on the Amiga. We were talking about forms of protection for the US market where most game instructions are written on slips of paper. Anita Sinclair of Magnetic Scrolls said that we we needed something more substantial which wouldn't be easily photocopied. Of course, we always have to keep an eye on the quality control with the novella products because one typographical mistake could cause problems.'

While Rainbird and Firebird use these protections against piracy, both companies are constantly looking for more discreet ways of doing the same job. 'We'd like to see the public become more aware of the problem so that they realise that piracy is not worthwhile. We're not happy having to put protection on. Until we can do without it there will be this slight bind for the user, although we'll always try to make the techniques as friendly as possible.'

"The trend toward the so-called legitimate use of pirates is becoming accepted."

THE OTHER SIDE

While Rainbird continues its fight against the commercial pirates, others are just as concerned about piracy through industrial espionage. Sales often depend on who's got the best 3-D vector graphics techniques, who produces the best digitised music or voice synthesis and sprite animation procedures. Problems can occur when several teams of contract programmers or designers are employed because it is impossible to keep all copies of a program under lock and key at the publisher's headquarters. If copies subsequently appear through pirate channels it is unlikely that the culprit will be found because of the number of suspects.

At least three major British software companies use fingerprinting methods to identify culprits when illegal copies of current secret projects turn up on the market. Each version of a game can be given a secret identity in a number of ways, either in the magnetic material of the disk or with an ultraviolet pen on its casing.

The simplest, and most widely used fingerprinting technique, uses a block of dead code which placed anywhere within the program and visible only when the code is listed. The code could simply give the name of the programmer and the date but is more likely to consist of a block of random numbers which the original publisher can identify. Non-programmers may see the removal of the identifying code as the pirate's solution. Not so. Removing part of the code is like changing the line numbers of a BASIC program but not changing the GOTO statements within the program. The code loses its structure and will not work as a game unless substantially re-written – not an easy job if you don't understand the code's workings.

FOR AND AGAINST

As I said at the start of this article, the biggest British software houses turn piracy to their advantage by unofficially endorsing it.

Such pirates are often members of development houses. Their fortunes are made by keeping up with the state of the programming art. They are just as adept at breaking other people's protection devices and studying the latest programs on the market as they are in creating their own games.

These, some would say unscruplous, programmers can also obtain incomplete versions of games to keep their publisher bosses up to date with possible market trends – *Star Trek*, from Beyond, and *Gauntlet*, from US Gold are two good examples of games which did the rounds of some software houses months before they were released to the public.

The trend toward the so-called legitimate use of pirates is, becoming an accepted, though little known, part of the industry. Unfortunately, several of the companies that bemoan pirate activities are actually using their services to gain information about competitors.

It's a dangerous trend and could have bad consequences for the whole software industry if some of its inmates are caught in the act. The trend is, after all, industrial espionage and, as such, illegal.

THIS IS NOT A PARTY POLITICAL BROADCAST!

(so wake up and listen carefully, for we'll only say this once . . .)

After hours of discontent, banging your head against fruitless machines, working yourself into a hot sweat over luke-warm software and waggling your opinionated joystick frantically for the betterment of mankind's software establishment, THE GAMES MACHINE brings you power to voice your opinion, air your (biased) views and preach to all converted the gospel of (distorted) truth. Yes folks, TGM needs your vote to establish the *TOP TEN READER'S CHARTS* covering all major formats. In true alliance style, the magnificent seven, ie Spectrum 48/128/+3, Commodore 64/128, Amstrad CPC, Amiga, Atari ST, PC-compatibles and MSX factions will have equal votes, agree to coexist in a friendly, party political way and tow the party political line in unison, which in plain English means seven different voices and a total of 70 different opinions over all formats.

Just specify which faction you belong to, name your ten favourite pieces of software and return your completed form in true secret ballot style (ie enclosed in a plain brown envelope) to our party headquarters.

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And oh, by the way, this ballot is rigged. The first three political activists out of the pile will receive backhanders, more commonly known as £50 software vouchers, which can be exchanged for more of the same software material, except we hope NOT for your personal TOP TEN selection.

Yes, I would like to list my TOP TEN favourite pieces of software.

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COIN-OP CONFRONTATION

Armed to the teeth with 10 pees, Robin Hogg and lensman Cameron Pound made their way North to Manchester to check out the coin-op scene and preview titles which will be vying for space in the arcades during 1988 and 1989. Thanks to Avril and Alan at Sunspot for the use of the machines.

NINJA WARRIORS

Producer: TAITO

The unique three-screen monitor previously used in Taito's hit *Darius* pops up again in this horizontally scrolling two-player martial arts game featuring, of all things, robotic ninjas. Taito has claimed that the game incorporates the best ideas from three-year's-worth of hit coin-ops, and it seems to have worked.

Ninja Warriors centres around one or two simultaneously-playing ninjas armed with shuriken for long range attacking and knives for close-quarters combat; they're out to defeat an evil dictator, and his entire army, and restore peace to the land. Along the way, enemy soldiers run on screen firing guns, launching mortars, attacking with knives or resorting to flying kicks if they get too near. Strange metallic hunchbacks make an appearance requiring multiple hits. As the ninjas move toward the gate at the end of each level, heavy firepower closes in in the form of tanks, fire-breathing Japanese-style warriors and other equally lethal foes.

The emphasis is on team work with *Ninja Warriors*, it's not too difficult on one-player, but when it comes to taking out particularly large opponents such as the tank, you will almost certainly need that second ninja nearby. The three screens give the players that much more space to fight in and the use of energy loss – rather than being killed on contact – makes it an easy-to-get-into game. The impressive, highly-detailed scrolling backdrops (hard to photograph satisfactorily though) are a delight to the eyes and the beating sound track is great (although far too loud on the version we played.) A great game, worthy of anyone's time and undoubtedly the best Taito game ever.

VIGILANTE

Producer: Irem

Renegade returns with *Vigilante*, a bash-em-up for streetwise fighters. *Vigilante* centres round the fight to rescue your girl (who, believe it or not, goes by the name of Madonna.) So with vengeance on your mind, you set out across the city taking on skinheads, knife-wielding thugs, gang leaders and more, all eager to spill your blood.

Several different weapons can be picked up en route through each level; against thugs armed with guns and knives, fists just aren't enough. Control is simple and yet sufficiently varied to let the player use different tactics on each opponent. Make it through to the levels' ends and there's Madonna in a truck along with the now standard BIG thug waiting nearby to pummel you into the ground. Even without weapons he's a tough foe, to say the least, but if you do manage to punch him senseless you can finally reach Madonna – except the truck she's in drives off! Infuriating!

The action continues through streets, a scrapyard and other grimed, seamy-looking locations befitting a district styled on New York's Bronx. The graphics work exceedingly well in recreating the seedy atmosphere of the streets and the street warriors battling it out against some fine backdrops; the scrapyard with the rusted cars is a personal favourite. While offering nothing new over existing games such as *Double Dragon*, *Vigilante* is full of neat effects, it's highly addictive, violent and worth checking out if you like street fighting coin-ops.

Rescuing the beautiful Madonna is no holiday

Robotic Ninjas slash and hack their way towards the ultimate defeat of the evil dictator

Deep in the caverns, distinguishing the torches provides useful objects to aid your quest

CHELNOV

Producer: Data East

Subtitled 'Atomic Runner', *Chelnov* is a fairly standard action game in which an Atomic Runner dashes through weird caverns derived from Fantasy and the future and populated by strange creatures, collecting weapons and leaping over hazards on the way to the final destination: New York's Statue of Liberty (Data East's logic seems to have gone astray with this game.)

Large mother monsters make an appearance and traps open up as the Runner progresses through the levels. At the end of each stage a map appears indicating how far there still is to go.

Chelnov is a good game in that it's not too difficult and doesn't require perfect hand/eye co-ordination; enemies can be bounced on and the collectable weapons are powerful enough to get you far into the game on one credit, making for good progressive play. *Chelnov* doesn't look terribly impressive at first, but in play it has those addictive qualities and not-too-complex control which always makes for an enjoyable game. Graphically iittle better than average, it's a pleasant game and not too taxing.

COUNTER RUN

Producers: Sega/Nihon

With the arcades enthralled by *Afterburner* and its sequel *Thunderblade*, Sega have sneaked out this little coin-op probably in a deliberate marketing ploy to get rid of your loose change after spending the rest of it on their monster coin-ops. Inspired by the oldie *Head On* and the more recent *Fast Lane* from Konami, *Counter Run* has you driving a Grand Prix car around a maze, collecting fruit while changing lanes to avoid oncoming rival cars.

A turbo boost option is available and cups can be collected to stop other cars and boost up the old score. Fairly uninspiring gameplay which gets repetitive very quickly indeed, *Counter Run* is poor in comparison with *Fast Lane* (both graphically and in general appeal) which itself wasn't very spectacular as a conversion of a very old coin-op. A disappointing release from Sega which won't survive 1988.

Plan your course of action and munch the fruit before your opponent clears the screen

SLOT NEWS

NEXT TIME you're wandering around the arcades keep an eye out for ***Krusha*** – it isn't a coin-op but a very silly, very addictive and very, very sick bash-em-up cabinet game. The player wields up a hefty 'mallet' and tries to ever-so politely and with great dignity bash the brains out of plastic moles that pop up from holes in the cabinet. After venting your skills on *Ninja Warriors*, you may as well vent your frustration on *Krusha*, which is well worth anyone's last 10 pee.

Two other games making their way into the arcades at the moment are Bally's ***Blasted***, an *Operation Wolf* clone set in a city ravaged by revolting robots and Konami's ***Vulcan Venture***, which is the third in the *Nemesis* series and has been receiving favourable reports, despite its unoriginality. ***Chequered Flag***, also Konami, will be arriving soon in the UK. Atari has ***Vindicators*** on the verge – a space-age game in which the one or two players control a futuristic tank moving around a space battlefield with decidedly odd tank controls.

Capcom has ***Last Duel*** also poised for cabinet space, along with several other titles for 1988 and 1989. What else is there? How about the highly successful beat-em-up ***Double Dragon*** and ***Gryzor***, both of which are now being put onto the Nintendo Play-Choice 10. And finally, Sega has ***Ace Attacker*** and ***Hot Rod*** in the pipeline for Europe and the UK. The latter title is a car racing game which is apparently an *Out Run* beater.

Watch out for more SLOT NEWS in next month's THE GAMES MACHINE!

the GAMES machine
COMPUTER & ELECTRONIC ENTERTAINMENT

CLASSIFIEDS

Your small ads are reaching over 200,000 other readers in Britain and around the world!

Due to the overlap in publishing schedules, many small ads sent in for TGM007 were too late for inclusion in this first classified page, although we waited until the very last moment! But don't worry, they are typeset and ready to go in TGM008

FOR SALE

C64 Games £100, worth £500. Disk Drive, printer £250. Amiga games for sale. Write for list. Will sell games seperately or swap (originals). Write to: Ken Mundell, 71 Carrickfergus Road, Larne, Northern Ireland BT40 3JX.

520 STFM. Atari IBM Drive, too much software to list but worth many hundreds. £480 no offers. Tel: Basildon (0268) 284021 after 6pm.

Spectrum 128K, swap or sell, over 100 games, 2 joysticks, interface 1, microdrive, printer, tape recorder, for Atari ST or Amiga or £325. Phone: Midhurst (073081) 2496 evenings.

Commodore 64, Datasette joystick, Music Maker, magazines, £200 worth of software including World Games, Out Run, Uridium, Sanxion and more. All originals, everything in excellent condition with manuals. Worth £450 but will sell for £150! Tel: 01 635 9392 after 6pm.

Commodore 64 and disk drive plus £400 software, joystick, light pen, Cheetah speech cartridge. Software includes Stealth Fighter and Strike Fleet disk versions. Please phone: 061 795 5415.

Amstrad/Spectrum disk drive, half meg drive 3" boxed, unused £45 ono. Brother HR5 printer, 80 col. 30CPI £65. Monitor stand £7, 50 blank DS/DD 5.25 disks £20. Tel: Derby (0332) 677748. Also wanted Sega carts.

Casio CZ2305 multi timbral synth, 100 voices MIDI P.S.U. £215. Nintendo Console, 2 carts plus 16" colour TV £135. Miranda fully automatic camera, cost £50 will swap for Coleco Vision Console. Tel: Derby (0332) 677748.

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Atari 520 STM, Hi-Res monitor, 2 disk drives, 100 games, fast basic cart., 20 blank disks, dust cover, mouse mat, disk box, mags. £450 ono. Tel: Darren (0430) 440735. 7 Pochard Close, Newport, North Humberside.

Spectrum software for sale! Gauntlet II (£5), Tai-Pan (£5), Watson's Assembly Language book and tape (£7.50), and BASIC Course, book and tape (also £7.50) Ring 09952 5066 after 6pm for details.

Want a bargain? Then buy my Commodore 128 with datasette, 170 games, books, mags, 2 joysticks PLUS Action Replay MK 4 cartridge and Currah Speech. Excellent offer at £400 ono. Tel: Basildon (0268) 412135.

48K Spectrum, Datacorder, 3 joysticks, interface, Games ace interface, 50 magazines, lots of games. Total cost £320, sell for £110 ono. Phone: 061 431 0506 and ask for Steven.

Sega for £60, two joysticks, Rocky and Hang On. £644 of Commodore 64 tape games all original, including Gunship, Barbarian, Tracker etc, only £120. Two Commodore 64 power packs £15 Commodore 64 tape player £15. Darren on 0423 864422

Multiface 1 (built-in Kempston joystick Interface) with wafadrive and eight 128K wafas, all for £40 O.N.O. Computer cassette recorder for £15. Phone 01-452 5877 and ask for Oliver.

Commodore 64, Datasette, Disk Drive, Modem, Light Pen, three joysticks, paddles, Action Replay Mk3 and over 100 games on tape and disk. All for £360 O.N.O. Phone 0246 566450

Commodore 64, C2N Tape Deck, Joysticks £300 software all originals, books very good condition worth £550 will sell for £180 O.N.O. Phone Gary on Norwich 0603 810871 after 6pm.

Amiga A500 modulator, disk box, Xennon, Backlash, Shangi, Defender, Sinbad, Feud, Grid Start, Skyfox, Marble, Basketball, Golf, Music Studio, Barbarian, Space Ranger: original cost £814.49. Will sell for £600 O.N.O. Darren, Knaresborough, 0423 864422

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funny Mercy Dash? (The totally un- nah, doesn't count.)

IT'S NO GOOD, ROVER - AS FAR AS SOFTWARE IS CONCERNED I'M A LEPER! IT'S TIME TO THROW MY HAND IN!

SNIFF! EVEN DAD'S STOPPED TALKING TO ME!

MIND YOU... THAT WAS IN 1968...

SIGH - THERE'S ONLY ONE THING FOR IT....

WOT?

TOGS OFF, ROVER! WE'RE GOING FOR A LITTLE SWIM....

CAR

LADY GODIVA'S GOT NOTHING ON ME... AND NEITHER HAVE I!

TO THE SEASIDE

GOODBYE, CRUEL WORLD!

NO HOPE BATHING!

FURGET IT!

LATER, IN A WELL-KNOWN OFFICE...

...NO-ONE'S GONE BUST, PROFITS ALL ROUND, NO LAW SUITS... BY GOD, DOMINIC, THIS BUSINESS IS GETTING TO BE A TRIFLE DULL! I....

ARRROO

FAR KING HAIL! MARK, LOOK! LOOK!

ACHE

MERCY DASH DISAPPEARS!

SOFTWARE CHIEFS DECLARE ANNUAL INDUSTRY HOLIDAY

CROUCHER PLUMBS MEN DEPTHS

DOLLAR

DIRTY WASHING FOUND ON SHORE

YAAAREEE!! DOWNTOTHEFORACELEB RATION!!!

I WONDER IS SHARKY GOT HER.... HEE-HEE!

WELL, MAY THE LORD HELP 'EM! HAR-HAR!

COME ON, NIKKI, DID SHE FALL OR DID YOU PUSH HER?

I HAD NOTHING TO DO WITH IT— I'M VERY SORRY TO SAY!

ER-AHEM - WOULD YOU GENTS 'APPEN TO BE THE WORLD FAMOUS DOMARK?

SYD MACHER'S ME 'AME - EXPLOITIN' THE DEAD IS ME GAME! PITY ABOUT MIZ DASH, EH, GUV'NOR...

...BUT I 'APPENS TO 'AVE EXCLUSIVE RIGHTS TO A POSTHUMOUS MERCY TRIBUTE GAME! CAN WE DISCUSS THIS SOMEWHERE PRIVATE?

...YERST... YOU'VE GOT AN INTERESTIN' POINT THERE, MR WHEATLEY...

SO...

GENTS

HM... WHAT DO YOU THINK ABOUT IT ALL, MARK?

I THINK WE'D BE DOING A GREAT SERVICE TO MERCY'S MEMORY... AND...ER... MAKING A MINT, TOO...

YERST! WE'LL MAKE A BULL EDEN FORCHEN' TERRIER!

NOW WASH YOUR HANDS PLEASE

BOGHAMER-SPOTT

ELLIOTT

CONTRACT

SO, I'LL DRAW UP A CONTRACT, SHALL I?

GOLLY! IT WAS MERCY ALL ALONG! AND BACK HOME, DAD IS STILL A DRAG!

... AND NOT ONLY HAVE I GOT THOSE MUGS DYING TO SIGN THE CONTRACT...

...I'VE ALSO GOT A DATE WITH NIKKI PENNY! SHE'S TAKING ME TO SEE 'ROBOCOP' TONIGHT! WHOOPS - THIS MOCK TURTLE SOUP HAS LOOSENED MY 'TACHE...

RIGHT - I'M OFF TO CLINCH THE LATE MERCY DEAL...

...AND I MUSN'T BE LATE! AND FOR GODS ACHE DRESS YOUR AGE, DAD! YOU LOOK RIDICULOUS!

THE RAM & INTERFACE

WOTCHA, ME OLE MATES! SYD'S BACK! GETCHA QUILLS OUT!

SOB! IT'S NO GOOD! I REALLY MISS THE LITTLE TWERP!

HNR!

CHOKES... IT WON'T BE THE SAME NOW MERCY'S GONE...

THE INDUSTRY NEEDS CLOWNS AND CRETINS...

WHY DID SHE DO IT, MAN!

OH DON'T START GETTING MAUDLIN - I - ER, AHEM, THE BINT RIPPED YOUSE ALL OFF FOR AGES...

I KNOW... BUT IN THIS IMMORAL WORLD, WE MUST MAKE A STAND!

RUBBISH...

NO, SYD... MARK'S RIGHT... GOSH, I'D GIVE ANYTHING TO HAVE THE LITTLE PIRATE BACK...

ALL RIGHT, NEXT BEST THING - LET'S CHIP IN AN GET SOME FLOWERS! GET A MOVE ON, THOUGH, AS PENNY AND NESELF ARE OFF TO THE FLICKS TONIGHT...

SYD - WHAT'S HAPPENED TO YOUR WHISKERS... GASP! IT'S MERCY!!

I THOUGHT IT WAS TOO GOOD!

TUMBLED! WELL, THAT'S THE LIFE INSURANCE WHEEZE RUINED.. BUT SO WHAT? I'M LOVED! I'M LOVED!

SCRAG 'ER!

LYNCH 'ER!

...AND THERE'S A GOOD £250 IN THE MERCY FLOWER FUND TO PROVE IT!

CLUMP CLUMP CLUMP

PHEW! HOME AGAIN... OKAY, DAD, YOU CAN PUT THE LIFE INSURANCE POLICY BACK IN THE SAFE, WE WON'T BE...

DAD! YOU DIDN'T!!

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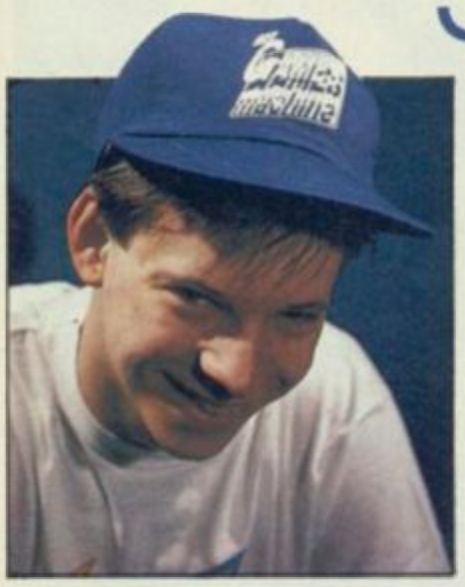

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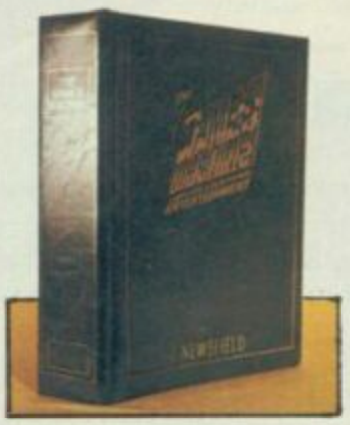

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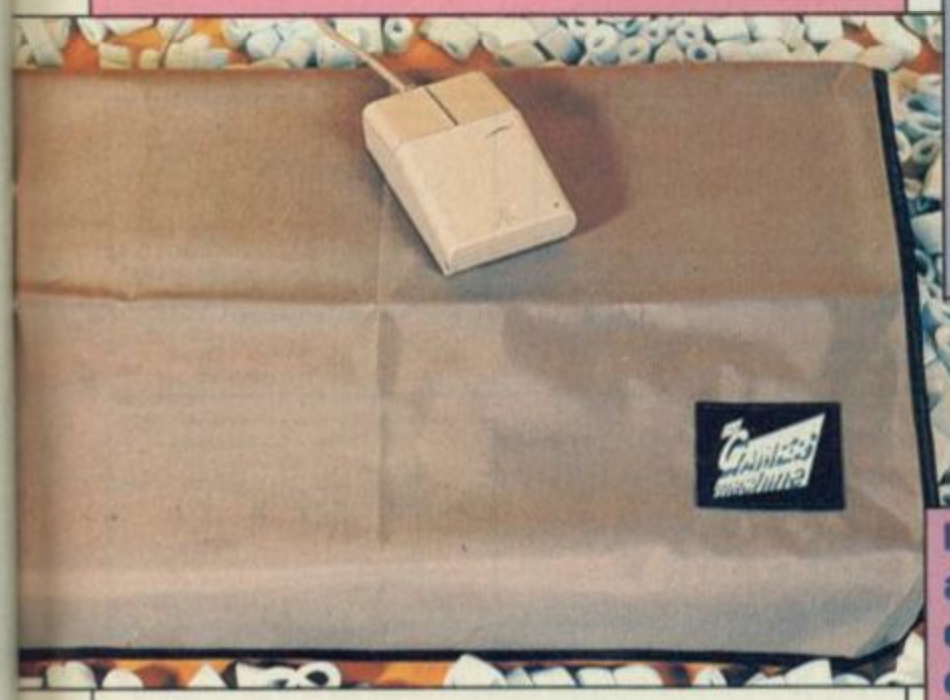

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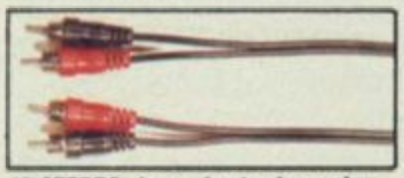

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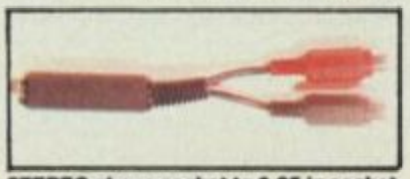

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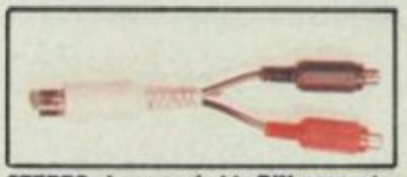

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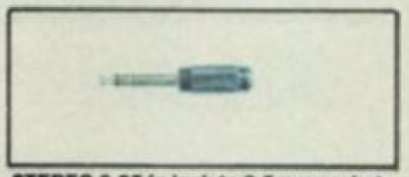

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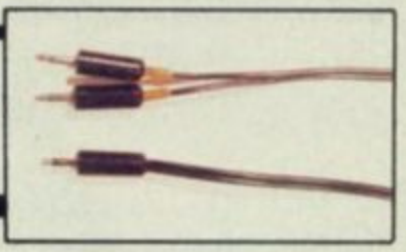

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A SOUND THRASHING

Sound has become a vital part of today's computerised entertainment, with sound effects, music and synthetic speech often doing more harm than good to a game. Mel Croucher asks you to lend him your ears.

"Noise is the most impertinent of all forms of interruption"
Schopenhauer, 1851
"The most exciting rhythms are unexpected, the most beautiful melodies simple and inevitable"
WH Auden, 1962
"Doobeedoobeedoo"
Frank Sinatra, 1966

The crummy little noises featured in British computer games have come a long way since those great days of the early Eighties. Who remembers the first time a ZX Spectrum loaded up and said 'Meteor Storm!' in a synthetic voice that sounded like an exploding zit? Who remembers *Q-Bert* getting plugged in to a Currah Speech unit and moaning 'Oh No-o-o-o!' every time he fell off his pyramid?

In 1968, Kenneth Kendal appeared reading the futuristic a news in the SF epic *2001 A Space Odyssey*. The film also featured a singing and talking computer, and audiences thrilled to the sheer fantasy of this speaking hardware monster. But by 1983 Kenneth Kendal himself had been reduced to a chip, and was available for a chat in the comfort of your own BBC micro. Proving once again that not only is truth stranger than fiction, but also that the BBC were too scared to use Wogan.

Today, state-of-the-art sound is to be found in such superb products as Broderbund's *Jam Session* and Ere Informatique's *Captain Blood*, but these are exceptions. Most music and sound effects are worthless appendages to computerised games, and anything half decent stands out like a sore with a bare head.

A SHORT HISTORY OF COMPUTER SOUND

1877: Thomas Edison produces the first recording of human speech, and saves it on a wax cylinder.
1898: Valdemar Poulsen invents the magnetic tape recorder and builds up a library of sounds on spools of wire.
1906: Professor Reginald Fessenden broadcasts the first sound effects, using a mechanical sequencer to control data stored on shellac discs.
1916: Edgar Varese uses 78rpm discs linked to a keyboard controller to store and retrieve banks of sound.
1946: the largest and most advanced computer ever built, the Harvard University Mark One, learns to play *Twinkle Twinkle Little Star*.
1954: Gordon Pask builds a machine and writes a program that reads, writes and improvises sound effects, rhythm and pitch.
1972: the first arcade game comes onto the market. It is a version of *Ping-Pong*, and has primitive sound-syncs.
1985: the most brilliant audio-based computer game in the history of the World is written by Colin Jones. It is called *Darkness At Dawn* and creates a brilliant adventure without the use of text or graphics. If any publisher wishes to release it, drop me a line.

"Music is only an illusion"
Igor Stravinsky, 1936
"If music be the food of love, book me a big band" **Mae West, 1951**

Music and special effects have long been used as a marketing device for UK computer games, starting off with Automata's *Can Of Worms* in 1981, through to today's use of Smokey Robinson on the backside of the *Platoon* tape. But the use of sound within the games themselves has yet to be fully exploited. Often, authors are forced to sacrifice much of the soundtrack in deference to graphics, still believing that what you see is always more important than what you hear. But as machine memories expand, games designers are able to exploit the full potential of imaginative use of sound, sound sampling and multi-coloured effects.

Who remembers the first time a ZX Spectrum loaded up and said 'Meteor Storm!'

SOUND SOURCES

ON BOARD ROM EFFECTS

Other than single-channel, twin-channel or stereo pitch parameters, sound effects that are built into computer ROM are rare. There have been notable disastrous exceptions, such as the Jupiter Ace, with its single key options for imaginative effects like 'whee', 'zap', 'ping' and 'whoosh'. There are a number of specialist little black boxes with banks of effects stored in ROM, such as the Yamaha TX81Z, with 128 factory presets plus 32 user-programmable sounds at the daunting cost of £449. Much cheaper, and much more useful is to tap into a bottom-of-the-range Casio sampling keyboard, where the dreadful sound quality is more than compensated by the ludicrously cheap two-figure price, fun of programming, and ease of imput-output.

SOFTWARE BASED FONTS

There has yet to be marketed a software package of useful special effects that can be incorporated in home-grown software. However, when it comes to percussion and synth sounds there are some excellent cheap products around, where the success of the final sound is limited only by the poor quality of most sound chips and speakers that games players rely on. To obtain any satisfactory sound quality there is a legion of sound card cartridges, for use in synth sampling, and thereby into games soundtracks. The Mega Rom 1024 DX offers over a thousand

near-perfect quality sampled synth sounds for £175, but it contains nothing that cannot be programmed for yourself.

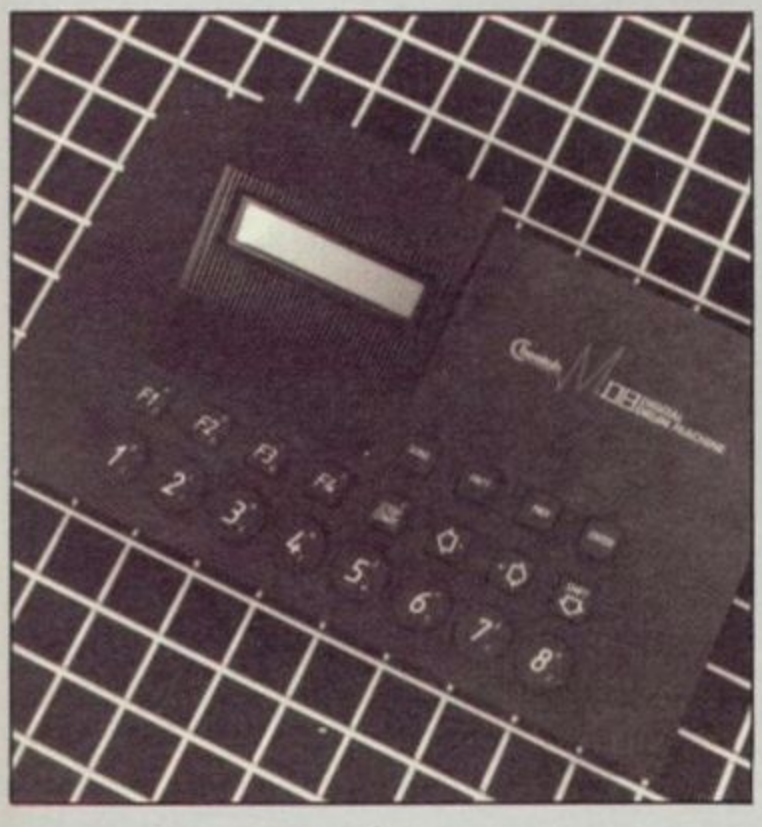
Much more interesting are special effects cards for Casio, Yamaha, Korg, Roland and several other MIDI-based machines, including the wonderful SC-02 (with great effects like a barking dog, breaking glass, gun shots, water drips and car horns), and the notorious SS-10 (*Tanja Sex Disc* full of grunts, oohs, aahs, and what had better be described as little pants.) These cards contain up to 64K of data, and cost from £14.50 to well over £50 each.

THE FUTURE

Cheap beat-box packages will get better and better, and a range of both tape-based and disk-based special effects will improve the soundtrack quality of games, if not their originality. Digitally sampled sound is vastly overpriced at the moment, but the price barrier will be broken within 12 months and prices will tumble. For the perfectionist, the BBC have released 9½ hours of special effects on CD, free of all copyright restrictions. But be warned, the package is priced at £230, which works out to an extortionate 20 quid per CD, and the content is confused, repetitious and 90% useless to games designers.

SFX-008: Comedy, Fantasy And Horror is easily the best, with 85 tracks of brilliant and useful material, lasting for 38½ minutes. But £230 is way, way over the top. The most useful piece of kit to games soundtrack producers is the marketing of a cheap stand-alone sound sampler with a mike socket in one end, and a computer interface in the other. Watch out for the likes of Cheetah and Romantic Robot, as well as Japanese giants.

"Sure it looks beautiful, but it's the voice that breaks your heart."
Ernest Hemingway of Marlene Dietrich
"I talk to the trees. That's why they put me away." **Spike Milligan**



. . . gimmicks should be used sparingly. Overkill is self defeating.

SOME SOUND ADVICE

DO ENHANCE a computer game. Tones, pitches, speech and music should reinforce the mood created by your graphics or text, without distracting the player. Like in a successful movie production, the audience is hardly aware of a perfect soundtrack, until it goes wrong, or stops.

DON'T DISTRACT. You are at a vital moment in your game, trying hard to concentrate, and that bloody noise crashes in and sends your teeth through your eye sockets. The use of an unsuitable lump of music or sound effect is often worse than no sound at all.

DO EXCITE. Intelligent use of sound can transform a run-of-the-mill game. A slow build up in volume, a quickening of pace or gradual multi-layering of effects can pull the player into the screen. But gimmicks should be used sparingly. Overkill is self defeating. As well as quiet discords, consider using silence to heighten tension before a vital moment.

DON'T IRRITATE. The programmer has ripped off two bars of Mozart or Motorhead, and repeats it from the moment you load up to the moment you pull the plug, no matter what is happening on screen. And try as you might, there are no instructions for turning the audio garbage off.

DO SHOCK. Being smacked in the ear is often as effective as being poked in the eye, and usually costs a lot less money. The use of percussive effects after lulling the playing with harmonics is highly effective. A sudden change in key or tempo only costs a couple of bytes, and just when the player is expecting another repetition in the soundtrack, they are pulled further into the game.

DON'T BE BORING. The same sound at the same location at the same moment at the same tempo at the same pitch at the . . . zzzzzzz

DO AMUSE. Humour is an important tool in games design. It can relieve tension, it can lull you into a false sense of security before you get zapped, it can get a knee-jerk reaction, it can deflate your ego, it can surprise. Silly effects like swanee whistles to enhance up and down movements, farts or cuckoos to deliberately break your concentration, or the patter of tiny footsteps in a chase sequence are all easy to program, and easy on your machine's memory.

DON'T BE SILLY. Special effects and synthetic speech rarely cause copyright problems, but 'borrowing' somebody else's music is likely to land you in court. Believe me, in the early days of adventure games, I was foolish enough to borrow a wee piece written by someone else. Unfortunately his name was MacCartney. The Mechanical Rights Society looks after the use of music in computer programs, and they are to be found at ***Elgar House, 41 Streatham High Road, London SW16 1ER*** **(01-769 4400**, ask for the video department.) These Royalty Rates apply up to September 1988, and if you use other people's music, *with* their permission, you can expect to be relieved of the following amounts from the dealer price of each copy of your labours:

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This is where the music is used as the program is loading, before it is run at any selection or option stage, or at the end of the game before the program can be rerun.

REPEAT PLAY 3%
When music is used to identify a character, a change of screen, or tells you you have been an amazing success or a miserable failure.

BACKGROUND MUSIC 5%
Those really boring bits which play while the game is running.

FEATURED MUSIC 7%
When music is a vital part of the game, like the theme tune to one of the characters. Also if music is displayed on screen in any form.

And if you tot that little lot up, you will discover why more and more programmers are composing their own themes.

I would like to end this piece by introducing you to a man who is not only composing his own themes, he's gone and given his peripherals an operatic career. Bohdan Mikolasek was born in Czechoslovakia and now works in Switzerland, where he has taken to giving concerts with his faithful 9-pin printer, which he calls a Canon PW1080A, but who will always be known as Dot Matrix in my heart. Young Dot features in a 12-minute suite for printer and symphony orchestra, called *Matrix Dreams*, as a precocious singer who is at first rejected and then loved by all other instruments. She has a range of three octaves, but I must say that her subtlety of volume control and range of expression leaves a lot to be desired. Not to worry though, Herr Mikolasek is working on a new piece of software for a 24-pin printer which will allow him 'far more subtle nuances.' And you thought I was crazy?

"Music has charms to soothe the savage breast"
William Congrave, 1967
"If you don't like the sounds I make, up yours! Mother,"
Frank Zappa, 1988

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BATTLE OF THE PHASERS WITH LAZER Tag TM/MC CHALLENGE

Lazer Tag received full marks for the technologica l detail that goes into the weaponry.

If you would like to know more detail about the Lazer Tag system, take a look at the report in TGM**001**. We rushed out to the local car park and started shooting the hell out of each other. And great fun it was too! The Lazer Tag system responded best of all the systems tested on that occasion, and it received full marks for the technological detail that goes into the weaponry. One benefit of playing Lazer Tag is that you don't get hurt, mucky, or start bleeding for any particular reason as the Lazer Tag gun emits a laser beam which, if accurately aimed, registers as a hit on your opponent's sensor; five hits and you're out.

Across the water in America there are now Lazer Tag arenas where players battle it out playing in teams – but why let them have all the fun . . . ?

Win one of 10 places for a day out at a Lazer Tag battlefield!

1: What is the name of the Lazer Tag gun?
a) Starlyte
b) Starfire
c) Bangstick

2: **The Lazer Tag system is made by which company?**
a) Wonder Toys Inc
b) Worlds of Wonder
c) Lazer Toys

3: **Apart from in Lazer Tag, where would you find a semiconductor laser?**
a) Compact Disc player
b) In a television set
c) Only in Lazer Tag

Lazer Tag system responded best of all the systems tested

BATTLE IT OUT

THE GAMES MACHINE has tied up with GO! to take over a sports hall in Birmingham where a special Lazer Tag championship will take place for ten readers. But apart from battling with other readers you'll be up against us GAMES MECHANICS and the staff of GO!. It's an all expenses paid day out in Birmingham and the ten winners each receive a Lazer Tag set and a copy of the new computer game.

If you think you have what it takes, answer the questions below and send your entries on a postcard or back of a sealed semiconductor laser together with your name, address, age (be honest . . .) and telephone number (if you have one) to: **LAZER TAG BATTLE COMP, THE GAMES MACHINE, *PO Box 10, Ludlow, Shropshire SY8 1DB***. Entries to arrive by June 16 and the competition rules, as detailed in the masthead, must be followed.

NEVER CROSS THE BEAMS

After last month's foray in Fantasy roleplaying, John Woods is back to the present with West End's zany Ghostbusters and breathes new life into DungeonQuest with its first expansion set.

GHOSTBUSTERS

West End Games Inc, £12.50
Role-Playing Boxed Set (Rulebooks, Play aids, Dice)

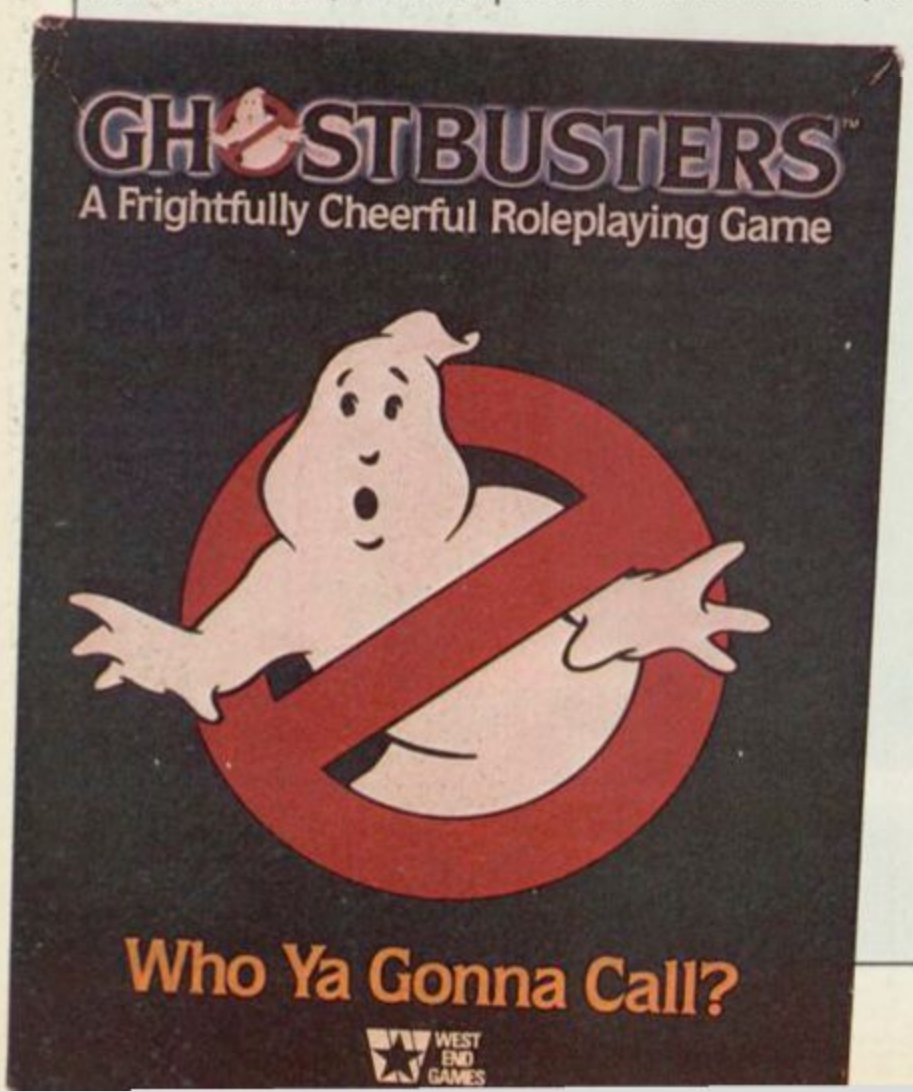
Ghostbusters provides an insight into the everyday life and habits of the many and wonderful ectomaterial beings whose consciousness, manifesting through manipulation of quantum instabilities in microscale space, impinges on our own in a complexly reinforcing way. In other words: a deserted department store. Two Player Characters, unlicensed nuclear accelerators strapped to their backs along with a full-scale arsenal of other bizarre and dangerous equipment, are stalking something spooky . . .

GHOSTBUSTER ONE: There's the little Slimer now, in with the soft toys!

GHOSTBUSTER TWO: Where? Where? (Squelch) Oh no, he got me! And I just had this thing dry cleaned!

GHOSTBUSTER ONE: I'll teach him! (Whoosh! Voom! Buddabuddabudda! Sounds of hideously expensive damage as a huge cloud of smoke engulfs the protagonists. A horrible ghastly silence) Er, you still there?

Ghostbusters is an RPG with an impressive pedigree, designed by such folk as Chaosium's Sandy Petersen, Lyn Willis and Greg Stafford, who worked on *RuneQuest*, and developed by the West End team whose other successes include *Paranoia* (the humorous style of which is carried over to *Ghostbusters*) and who went on to produce *Star Wars* (which uses essentially the same all-action skill system as this game). Inspired by the hilarious film of the same name (you didn't need me to tell you that) in which a motley crew of misfits open a ghost-hunting outfit in New York and take out a weird variety of ectoplasmic entities with a range of bizarre high-powered equipment, the game's designers have come up with a very simple system using a minimum of rules that gives endless scope for hilarious roleplaying.



MEGA BUCKS

Players take the roles of Ghostbusters, either ones from the film or their own characters, striving to rid the world of the menace of strange creatures from other dimensions without getting slimed, shot, scared stiff or falling from very tall buildings any more than is absolutely necessary, and if possible making big bucks in the process.

PCs are described by four traits: Brains (intelligence and knowledge), Muscle (strength and stamina), Moves (speed and dexterity) and Cool (charm and bluff). Doesn't that seem easy after *Harnmaster*? Scores in each trait give the number of six-sided dice to be rolled when attempting to perform a task related to a particular trait. PCs also have certain talents which are roughly the equivalent of skills in other games – a character talented at a particular thing receives three bonus dice. The total dice roll is compared to a difficulty number set by the Ghostmaster (*Ghostbuster* for referee), ranging from, say, five for the easiest tasks to 30 for impossible games. If the roll exceeds the difficulty number, the task – anything from proton-packing a ghost to bluffing a police officer or posting a letter – is successful; otherwise the character has goofed.

A fun twist is provided by the Ghost dice – a normal six-sided die with the *Ghostbusters* logo replacing the six. This must always be one of the dice rolled in making a skill test, and if the Ghost face is revealed, Something Bad has Happened. If the dice roll is still enough to succeed, the task works but some minor niggling inconvenience results. If the task failed anyway and the Ghost pops up, the Ghostmaster can really have a laugh at the player's expense as things go wrong in a big way! The Ghost dice is a lovely way to make sure something really whacky happens at least every sixth dice roll on average!

The only other significant rules feature is the use of Brownie Points, given to players in the same way as experience points in other games, and which can be spent to augment dice rolls in tough spots (one brownie point buys an extra die), to save a PC's life (character's don't die in *Ghostbusters*, but instead buy themselves miraculous escapes with Brownie Points) or traded in for an increase in a Trait score.

HARD HAVING FUN

The boxed set, produced throughout with the professionalism and polish of all West End's releases, contains a training manual (basics for players and Ghostmasters), operations manual (three introductory adventures, Ghostmastering tips, campaign ideas, suggestions for adventure plots, details of the ghostly opposition and more), various extras such as a Ghostbusters Franchise Agreement, maps for the introductory adventures, a sheet of ID cards (character record sheets) and equipment cards (detailing commonly useful items such as geiger counters, proton packs and scuba gear). Oh, and there are the dice – five boring ones and the infamous Ghost dice. What more could you ask?

'Fun' RPGs can be harder to referee than more conventional ones – it takes a particular skill to keep the action moving all the time in a way that is fun for both yourself and the players, whereas in more complex games the rules themselves provide some of the action – but *Ghostbusters* goes a long way toward meeting this difficulty. It provides a good selection of pre-prepared adventures and a wealth of genuinely helpful tips for referees as well as a rule system so easy to pick up that players soon know exactly what they're supposed to do to resolve a situation, and referees needn't spend time frantically leafing through the rulebook to see how to cope with particular cases. And when the scenarios included run out and Ghostmasters haven't time to plan out their own, there are several

excellent scenario packs available.

Best of all, the rules are fun to read. In illustrating the skill system, most RPGs would take the case of firing a blaster, casting a spell or picking a lock, *Ghostbuster*'s example begins: 'Let's say you are attempting to eat a telephone . . . '.

In conclusion, a fast-paced game that is easy to learn but provides plenty of scope for hilarious action. The rules are simple in the extreme but have a number of really nice touches, and there's plenty of background information to help you recreate all your favourite bits from the movies and much more besides. If you fancy a spot of light-hearted modern-day roleplaying and laughed more than twice at the movie, you'll love this. Just remember – NEVER cross the beams on those proton packs . . .

HEROES FOR DUNGEONQUEST

Games Workshop, £9.99
Expansion set for *DungeonQuest* fantasy boardgame

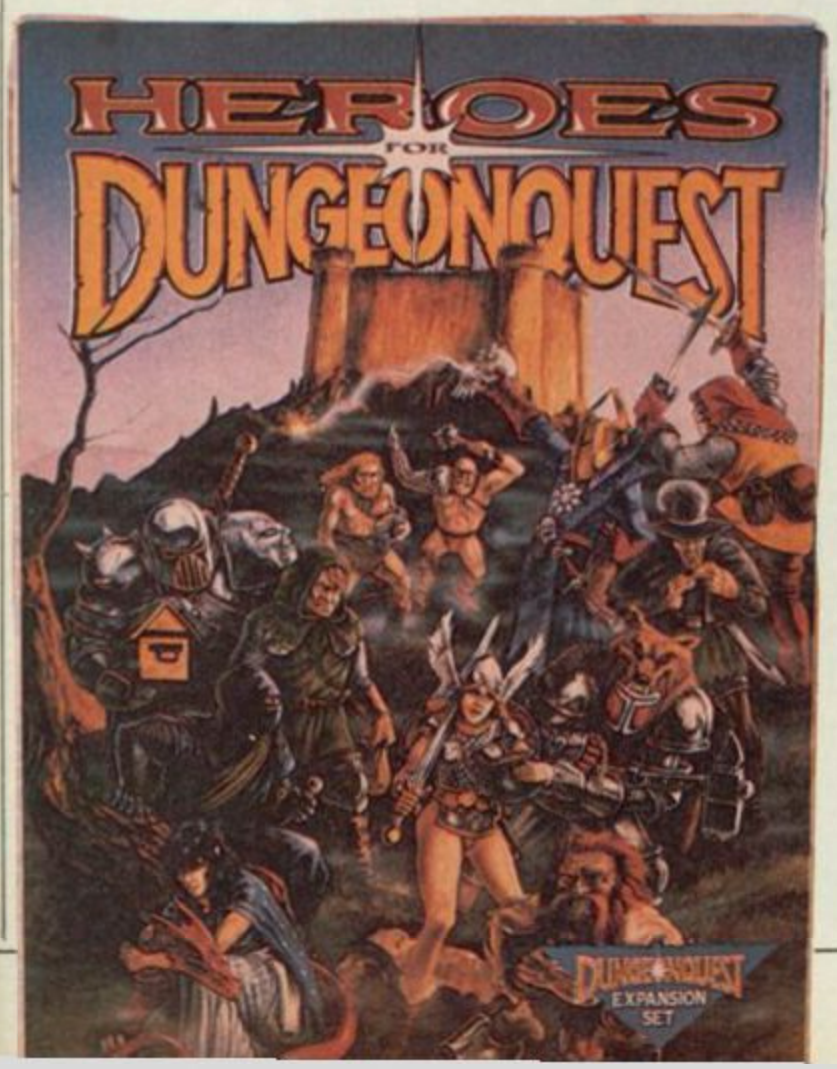
Apparently Games Workshop's *DungeonQuest* fantasy boardgame (which I found rather disappointing back in TGM**004**) has been a sellout success, which just goes to show. As all successful companies in today's games market know, sales figures like that call for rapid release of a supplement! So I was only mildly surprised to find a review copy of *Heroes For DungeonQuest*, the first expansion set, lurking silently within its padded envelope. Inside I found 12 heroes as varied as they are dangerous, having in common only the desire for treasure and the willingness to risk becoming dragon fodder in the deadly catacombs of Dragonfire Castle!

The set, which can't be played without the original game, contains a metal miniature playing piece and character card for each new hero, a six-page rulebook describing each character's unique abilities, a few additional card playing-pieces and a ten-sided die (needed for some of the new rules). The four characters supplied with the original *DungeonQuest* were all very similar to each other, whereas the new characters are much more varied.

THE NEW HEROES

Helena the Swift is a light-footed adventuress able to move fast and use a slingshot against enemies. Thargrim the Dark Lord is a Chaos worshipper whose evil gods give him the power to repel certain monsters. Ironhand the Mighty is a thug – a gladiator with more Life Points than a small town and a reliance on pure brute strength. Two elves are included – Farendil the Ranger, who uses a bow, and Sarellia of Zimmendell (eat your heart out JRR) with her familiar Flame bright. She is one of the most entertaining characters, physically feeble but gaining a lot of special abilities through Flame Bright who usually warns her of any traps or deadly rooms before she enters them.

Another fun character is Fhyll Madaxe the dwarf beserker, who has a tendency to lose control during combat. It makes him a fearsome opponent but may lead to his rampaging wildly through the dungeon under the control of another player! Azoth the Faceless brings some serious Magic into the game with a choice of six spells – enough to make short work of most monsters, but woe betide him if he has to fight hand-to-hand with his puny physical strength! Tori-Jima the ninja, often avoiding combat through his impressive stealth abilities, is deadly with his shuriken. And to fill out the numbers we have Rildo the thief, Sir Roland the Knight, Siegfried Goldenhair and Vikas Swordmaster.



STILL FLAWED

These new characters don't allow more than four people to play simultaneously, but just add to the variety of the game by allowing a much wider choice of hero. Other slight additions are the inclusion of a few new magical rings and two sets of combat cards to replace the combat chits and resolution table in the basic game – the rules are the same, but combat is made slightly quicker to resolve.

Some of the new characters, particularly Azoth and Sarellia, require quite different tactics to play successfully than those for the basic game, and there is enough variation between heroes to make it fun to try and play each in his, her or its own particular way.

But for me the basic flaw of *DungeonQuest* still remains – whilst the game is fun to play a few times, there's very little depth to it and even worse no scope at all for cooperation or enmity between different PCs. This expansion set will certainly provide a new injection of fun for those who enjoyed the original but tired of it's lack of variety, but I can't help question the value for money it offers. The main expense must be due to the Citadel miniature playing pieces – very fine if you like that sort of thing but a needless luxury for anyone not a fanatic miniature collector. Plastic figures or even card counters would have been completely satisfactory. The rest of the set, and the part that really enhances the original game, consists of just a couple of double-sided full-colour sheets of card playing-pieces and a very short rule booklet. Surely these could have been included with the basic set without increasing the price significantly? I'm afraid I find myself wondering cynically if the whole product isn't really an effort to offload end-of-line miniatures . . .

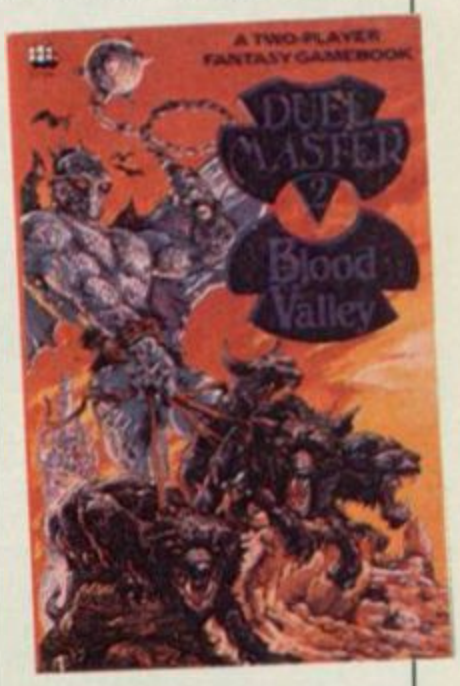
Maybe the promised second expansion set, *DungeonQuest Catacombs*, will have more general appeal.

IN BRIEF

I've just got hold of a copy of Games Designer's Workshop's *Traveller: 2300* game, a science fiction RPG set as the title suggests 300 years from now as mankind explores and colonises the nearby stars. The original *Traveller* rules system was the first SF roleplaying game, dating back to the late Seventies and still available as *MegaTraveller*, but *Traveller: 2300* is a completely new game.

My first impressions are favourable – the boxed set at £12.95 includes not only manuals for players and referees, but an impressively detailed starmap of nearby space, an introductory adventure booklet and more. It has a strikingly simple rules system – leaving a lot to the referee's discretion but allowing a fairly high degree of realism in play – and it can easily be expanded to include a referee's own ideas. Watch this space for a full review!

Finally this month two recent releases in the Steve Jackson and Ian Livingstone *Fighting Fantasy* series of solo gamebooks have come my way: *Midnight Rogue* (written by **Graeme Davis**, £1.95) and *Chasms Of Malice* (**Luke Sharp**, £2.25), both published by Puffin. In the former you guide the



destiny of an aprentice thief seeking to gain full membership of the Thieves' Guild by stealing a priceless gem, whilst the latter is a more standard adventure romp as your character quests to save the land of Gorak from evil Orghuz. The same simplistic combat and record-keeping system that has seen this series through 30 titles and over eight million sales is still there, though in *Midnight Rogue* there is a minor addition in the form of a choice of specialised thiefly skills for your character (dare I suggest slightly reminiscent of the *Lone Wolf* books?) Nothing earth-shattering here, but a painless way to while away the odd half-hour.

POSTE HASTE

THE GAMES MACHINE'S regular Play By Mail column

As last month's PBM column was greeted with cries of 'at last!', Los Angles saw the release of a controversial new movie on gang warfare called *Colours*. According to *Newsweek* there were more gang killings in LA than there were homicides in the whole of Europe, so it was with renewed interest that we awaited the responses to our turns in the game based on New York street gang warfare – KJC's *It's A Crime*.

TGM's bid to become a New York City Godfather rests on two gang leaders participating in *It's A Crime*'s game number 29. For the most part this column will follow the progress of just one Gang, but if anything exciting happens with the other one, expect reports.

The primary Gang began its campaign by sending a Punk and two 'Cruits (recruits) led by a Pro (professional) to ROB an apartment building in an adjacent city Block. This helped boost the gang's Notoriety and Wealth but also made the local residents and police more alert. Even more money – over a thousand dollars – was raised by PUSHing nine units of Streetdope to a known child molester. An effort to build some Notoriety by ACTING TOUGH failed due to lack of personnel however. This failure was mainly due to a CONTROL attempt aimed at another adjacent Block which involved one Pro, five Punks and 12 'Cruits. (With weighting factors taken into account – ie a Pro is more important than a 'Cruit – this comprised 75% of the gang.) Fortunately the group encountered no resistence, and by threatening to cut off the electricity took over the block. This significantly added to the Notoriety of the Gang and attracted two new 'Cruits.

One former leader of the Gang, Eddie 'Four Eyes' Johnson, turned up for a meeting in the park with the current leader. His advice was to not to be over-ambitious – attempting operations more than 15 blocks from home turf can be very dangerous. He also reminisced over the old days when his preferred method of raising cash was to FIREBOMB warehouses, raising money from the owners who got big compensation sums from the insurance companies. A Pro, two Punks and five 'Cruits was his favoured team set-up with eight small bombs, just to be sure. Eddie also advises caution in dealing with other gangs, too often they backstab you, and in any case it's best not to make friends with too many groups nearby or you'll have no room to expand. The meeting is ended by the arrival of some cops who don't seem overly concerned with taking Eddie alive.

At the end of the first turn, the primary Gang had doubled its territory, Notoriety and almost doubled its Wealth as well. In addition four new Blocks were scouted for further action and experience led to the promotion of one Punk to Pro level, and two 'Cruits to Punk level. Morale, however, has fallen by a point so maybe it will be time to USE DRUGS soon and party – well, it is just a game . . .

If that seems like enough excitement for one game week (ten days) be warned that according to one reader it takes quite a few turns to really get into *It's A Crime*. With other gangs yet to be encountered and full-scale gang warfare some way off, one can appreciate what he means. By way of contrast **Gary McCambre** of Stonehaven thinks *It's A Crime* is overrated as it is too easy for other players to control numerous positions, making it potentially unfair.

In fact, Gary, the *IAC* rules claim having more than two original gangs will lead to a player having all his gangs expelled.

Gary recommends instead *The Chronicles Of The Knights Of Avalon* by Jade Games. A game we cannot comment on as we haven't seen a copy as yet.

Readers with similar or strongly opposed opinions are welcome to write.

DARK BLADES – A LIVING ADVENTURE

Standard Games PBM

JUST as we were putting TGM**007** to bed, a parcel containing the above-mentioned materialised in the office. The 'living adventure' looks interesting enough to warrant us having a go; if that proves to be so, a report of our turn will appear next month. Meanwhile a quickie preview . . .

Mon-Ogres, the beings created by humans cohabiting with Ogres, and man, are preparing to do battle once again.

The Mon-Ogres have revenge burned deep in their souls for they were enslaved and degraded by human masters. While man slips further down the red road of violence, leaving his skills and intellect behind, Mon-Ogres progress, slowly, quietly. A time comes when the two races can no longer live together and the land of Labrynthia runs red with their blood. Equally matched, it is rumoured that the victors will be the side that first discovers The Golden Dragon, lying forgotten in a dark place somewhere on the island.

You can either play a Mon-Ogre or a Human and choose to be Warrior or Trader. You are subsequently given a set number of tasks to complete. Finishing the final task awards you a quest to achieve, do this and you become Game Champion.

The world of *Dark Blades* is divided into a Hex map with 382 positions across and 132 down, making for quite an extensive play area. There are thousands of creatures within the land, to trade with or fight; all are different and even the lowliest of them has over 70 elements built into its make-up.

Dark Blades looks complex and deserves a closer look, check out TGM**008**.

THE GAMES MACHINE is always delighted to hear from PBM addicts, and from any PBM companies. Our sister magazine CRASH, bearing in mind it is primarily dedicated to Spectrum games, was voted as giving the best PBM coverage of any magazine after *Flagship* – we aim to take that coveted accolade over, so your input is extremely valuable. Write to: POSTE HASTE, THE GAMES MACHINE, *PO Box 10, Ludlow, Shropshire SY8 1DB*.

DARK BLADES
PLAY · BY · MAIL
A Living Adventure

Over 25,000 mapable positions; Unique line of sight vision; Over 20 different types of armour and weapons to choose from and dozens of different items to trade with; Play a mon-oger or human; 1000's of individual npc characters to hire, trade with, fight, speak to or learn from.

There are thousands of creatures within the land of Dark Blades, all are different and even the lowliest has OVER 70 elements built into its make-up to make it a true individual, with its own reactions and, dare we say, LIFE? Using the unique Gamma Operating system to control the game has created a living world inside a computer, where the 'game' could go on even without players. You complete 10 tasks before being given your final 'quest' and the first player to complete their quest wins their game and receives free game play in another game, as well as a chance to become the 'Champion of Champions!'

Don't delay the exciting experience of playing a LIVING ADVENTURE — send for your start-up package now!!

The start-up package costs £5.00 and for this you get a rule book, full colour A2 poster-size map and two free turns, all enclosed in a full colour box to help you keep your turn sheets tidy. Further turns are £1.25 each - and we mean £1.25, there are no "HIDDEN" extras.

1st Prize
HACKER
the Golden Dragon

Dark Blades Play by Mail prize for the Champion of Champions. Hacker is 22ct Gold Plated and valued at OVER £1,000!
Size: Approximate wing span of 12" and measures 12" in length.

Send your £5.00 (cheque/cash/postal order, no coins please) to: STANDARD GAMES PBM, Arlon House, Station Road, Kings Langley, Herts WD4 8LF., or if you're STILL not convinced send a stamped addressed envelope for more details.

GET INTO CRIME!

In the late 1990's the streets of New York are a jungle. You are the ice cool leader of a gang of drug crazed terrorists. Your main goal is to become the richest, toughest and most notorious gang in the city.

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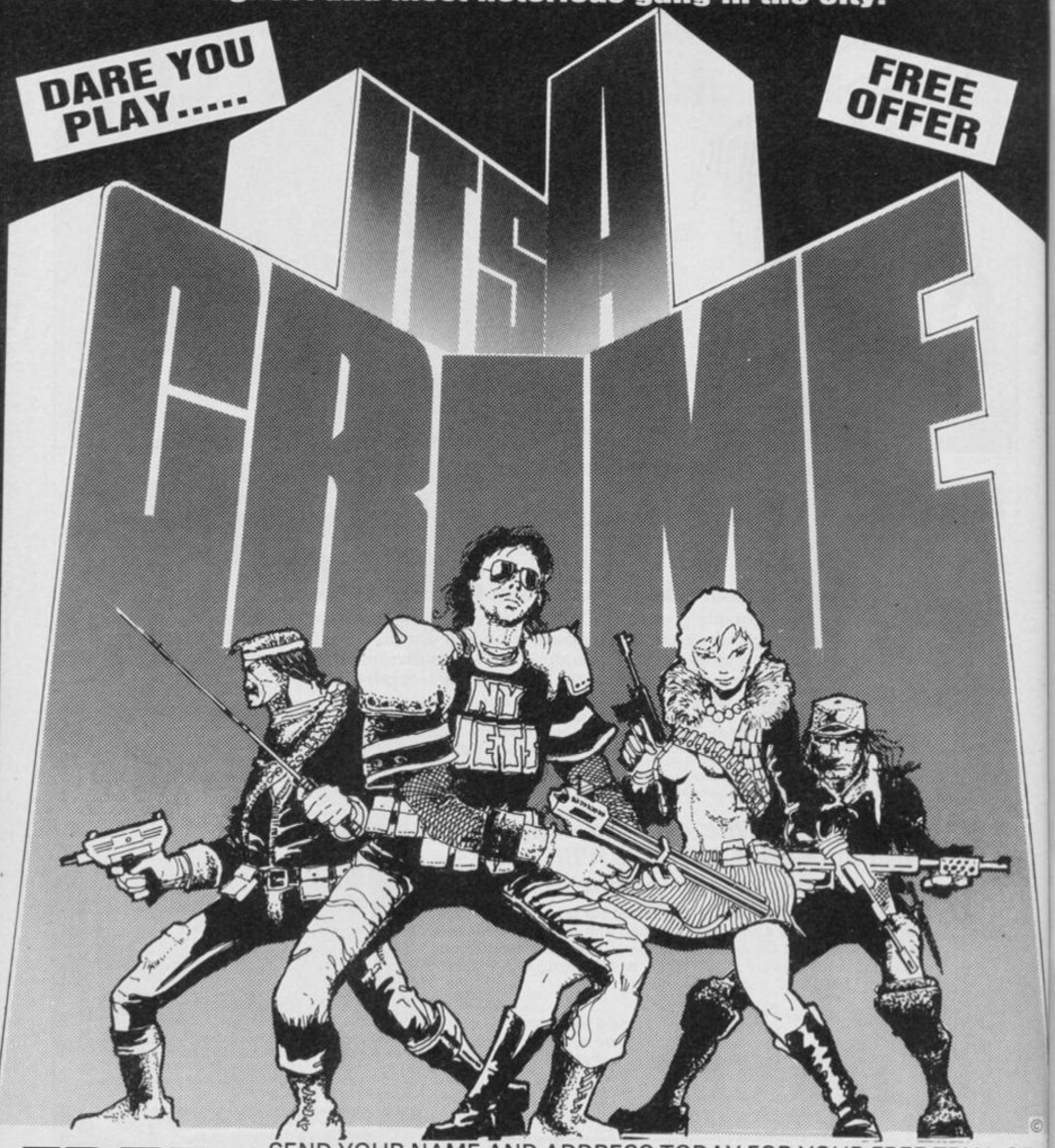

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SEND YOUR NAME AND ADDRESS TODAY FOR YOUR FREE TRIAL OF **IT'S A CRIME** THE WORLDS MOST POPULAR PLAY-BY-MAIL GAME

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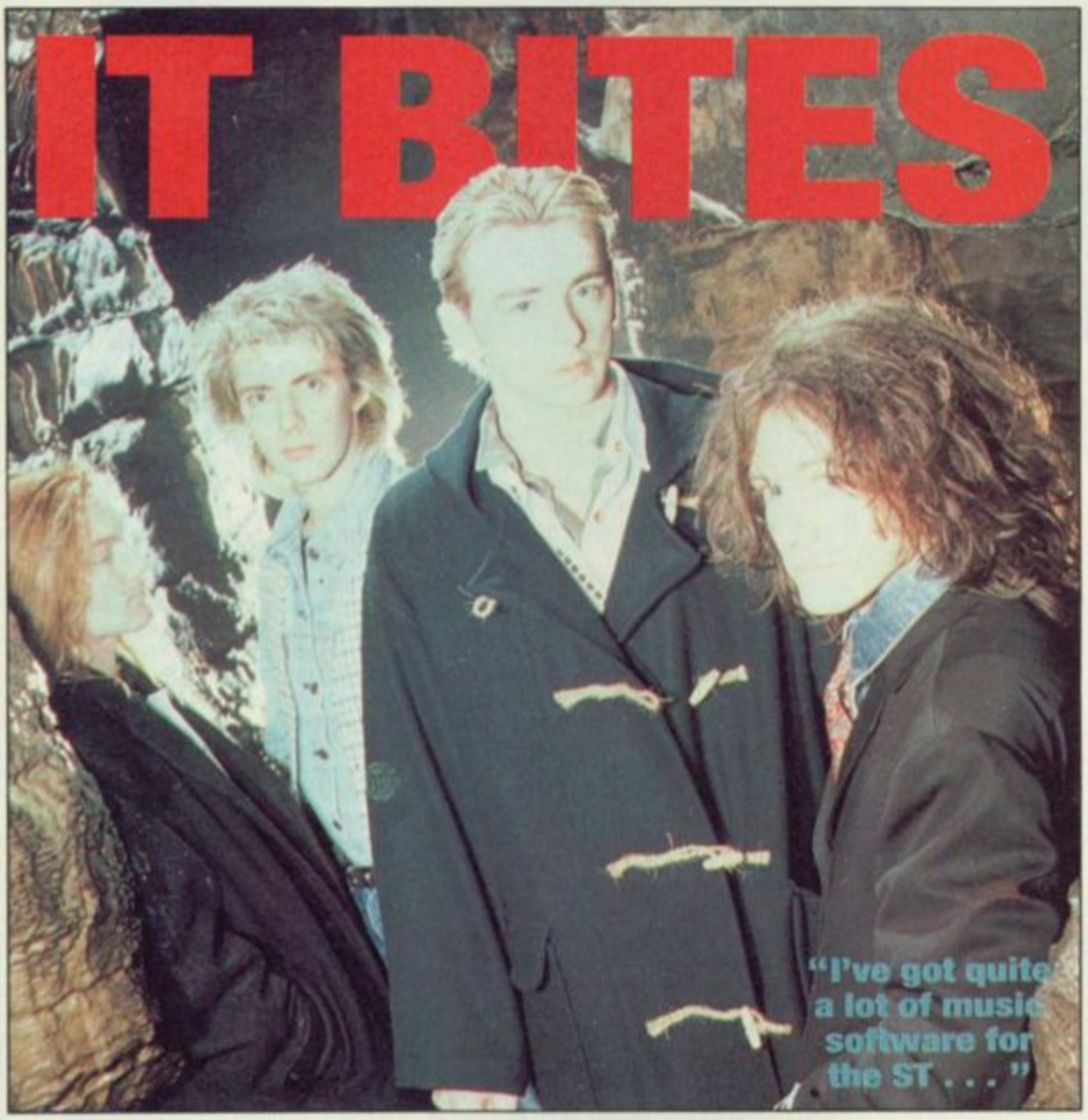
What's this? THE GAMES MACHINE becoming a rival for the New Musical Express? Not really – just an in-depth feature on one of the best original bands around at the moment and how their main man is keen to take a month off to learn machine code programming. He uses an ST for lots of musical and non-musical work. The band . . . ?

"We're waiting for a digital drum kit which we could possibly link up to the Atari . . . "

IT BITES



About eighteen months ago several musician-type friends were playing an album to death at an amazing amount of decibels and raging over the songs, the musicianship, and the number of beats per bar, harmonies, sequencing, etc, etc, at an even greater level of decibels. This admiration was all the more incredible as people who play for a living are usually fairly critical, having built up a fairly healthy cynicism to most records and bands and are not prone to going over the top without just cause.

After listening to the same album I rapidly came to the same conclusion and got hold of it; the obliquely titled *Big Lad In The Windmill*, which, incidentally, I'm still playing to death. Funny thing is that nearly every musician I ran into after that also had acquired a great respect for the band. It Bites (the name came from a sign concerning a guard dog) seemed to be fast becoming musicians' musicians, who used amazingly complex timings and swopped rhythms around like other people change underwear, and yet retained an aura of commerciality. Having heard that front man and guitarist Francis Dunnery was heavily into micros, games, as well as music, it seemed an ideal opportunity for THE GAMES MACHINE to talk to people who use the programs reviewed in the music section for real: as in professionally.

The dressing room at the Powerhouse in Birmingham is about the size of a large fridge; open the door and the band fall out. Having no mains power sockets to hand, the interview was hastily scribbled down on paper. Most of the conversation was with the aforementioned singer and lead guitarist of extraordinary speed. Tall, thin, hair tied back, he is enthusiastic and very approachable.

'To what extent is your music shaped by using a computer to work with in the composing stages?'

'Not at all. Most of the time I work on a keyboard, pinched from John (the keyboard player) and work out pieces from there. He hates computers.' At this John Beck pulls a suitably sour face and exits the dressing room. Francis continued, 'I've got quite a lot of music software for the ST; a *Steinberg Pro Creator*, a Hybrid Arts *DX Droid* voice editor for the DX7, a *Gen Patch* Library, but mainly I use the *Steinberg Pro 24*, I've got both versions of it. I use it like a musical sketchbook, recording ideas in real time as they occur. I discovered that if you ignore things like beats and bars and turn the metronome off, it's just like using a tape recorder only better.

'We've got our own studio, sort of, with an eight-track recorder that we use to set our ideas up, a Yamaha Rev 7 reverb unit and a TC2290 sampler to play around with. Mind you, most of the time I transfer the stuff from the Steinberg and we end up using only two of the eight tracks on the recorder because you can build up quite a lot of tracks on the Steinberg. It is really a very fast way of sketching out and building up ideas.

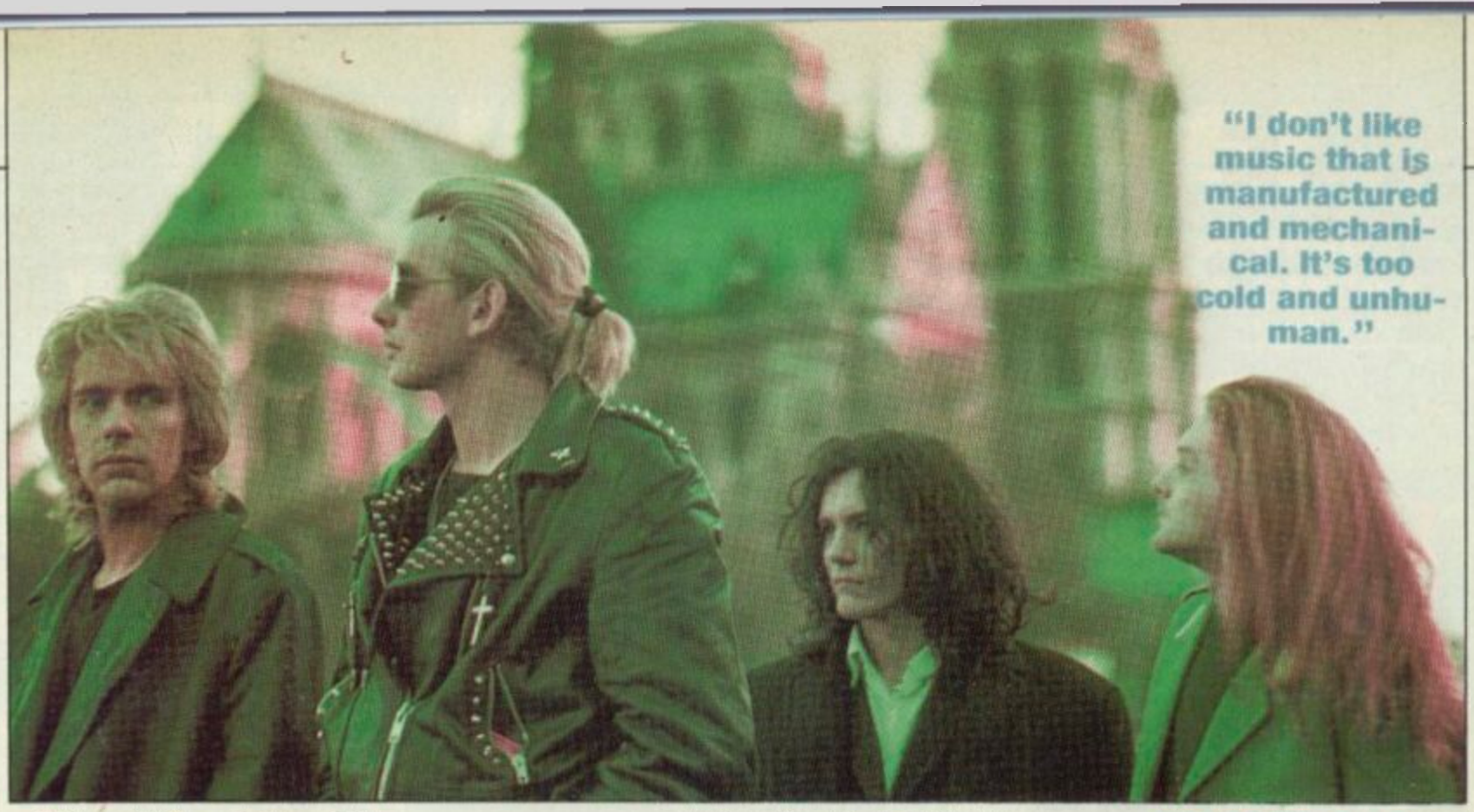
'I've also triggered off sounds with the Steinberg using a Stepp MIDI guitar, that was pretty good as well. We're waiting at the moment for a Yamaha digital drum kit which we could possibly link up to the Atari to build up ideas as the digital drums will interface via the MIDI ports. I've also got a Casio CZ3000, they were going dead cheap at the time, and I've used that with the Steinberg software as well.'

"Some synth sounds we use on stage have been created on the Atari . . . it is a big help."

EXPLANATION TIME

For the uninitiated, the *DX Droid* lets you edit and store sounds for the DX7 synth. There's a review of this scheduled for later in the year. The *Gen Patch* is a complex voice library which stores and orders up sets of sounds for whatever synth you like. This is also due for a session on the test bench real soon. The *Pro Creator* is a DX7 sound programmer. The *Steinberg Pro 24* is a 24-track real-time sequencer which was reviewed in TGM**004**. The second version presents the music in traditional notation on screen and has been smartened up from the earlier versions with better synchronisation features.

The Stepp guitar is rather like a conventional guitar except that it converts the notes and sounds to MIDI code and outputs them to whatever you want. The Rev 7 does exactly what you would expect – a digital reverb unit that does have some interfacing via MIDI so that you can call up preset reverb programs. The TC2290 sampler Francis mentioned I can't find anywhere! (You can't win 'em all), and the CZ3000 is the larger brother of the humble CZ101.



"I don't like music that is manufactured and mechanical. It's too cold and unhuman."

At this point the main turn of the evening, one Robert Plant, came into the dressing room; 'Next time I tour I'll get a lousy band to support me,' he said good humouredly. And off he disappeared to deliver his set to the packed house.

Meanwhile . . . 'How about synth editing, creating sounds with the aid of the ST and suitable programming software?'

'Some of the synth sounds that we use on stage have been created by us on the Atari using software programming packages for the relevant synths. It is a big help.'

'What about the sequencers and the sequences that you use live?' Here I was thinking of songs featured in their set like *You'll Never Go To Heaven* and *Kiss Like Judas*.

'No. Those are recorded into the QX5 (a Yamaha dedicated sequencer). Anyway some of the tracks were written before we got into using the software. At one point we were toying with the idea of taking the Atari ST on tour with us but it might be a bit too dodgy, getting battered about a bit and it could become a bit unreliable. I mean they're not built for touring. We'll probably use the sequences created on the Atari more for the next album, and probably download the sequences into maybe the QX5 for live gigs.'

GETTING TOGETHER

There is a lull, and then he continues emphatically: 'Mind you, having said all that, I would really like to stress that I hate computerised music. I don't like music that is manufactured and mechanical. It's too cold and unhuman. I use mine as a help and don't use any of the dehumanising parts of it, all the quantization features and so on.'

The band met first at primary school in the Cumbrian village of Egremont, which probably goes some way toward explaining their unique style and affable nature – face it, it's like being married to three other guys when you are living out of each others' suitcases. They have been playing together for about eight years, working their way up the hard way. Soon after a move to London in 1984/85 they signed to Virgin. They soon achieved a reasonably respectable chart position with *Calling All The Heroes* and subsequent singles got airplay and bubbled around the charts.

"As soon as I get back home I stay in my bedroom and play games."

Following the release in '86 of the first album, they embarked on the treadmill of extensive gigging, headlining at colleges and universities and supporting plenty of major tours as well as fitting on the bill of several UK and European festivals. In short, working their asses off. The second album, *Once Around The World*, was released at the end of March this year. On the new album the title track is a mini saga of 13-minutes duration – which is almost a throwback to the days of pretentious 'concept' albums, circa 1970. Pretentious it's not though, the album being a healthily balanced diet of really quite original material within an accessible style. Despite the length of some of the songs, they are very memorable and sometimes quite hard-hitting. *(Watch it! – you could be eligible for pseuds corner at this rate -Ed.)* Personally I find the material a curious mixture of Go West, Yes and even Frank Zappa but very memorable.

Talking to the band as a whole I was surprised that musically they have had little formal training since the complexity of some of the material is quite stunning. Quite a few of the numbers feature very rapid shifts in accents and rhythm which never get to the cleverness-for-its-own-sake stage but flow together naturally. At times each of the four members are playing in different time signatures. It's quite surprising that given this unusual nature of their material plus superimposed, repeated riffs of different lengths etc, that a lot of their songs didn't originate on a computer program. All songs are credited to the band as a whole and not individually, and of late they have also produced a fair amount of their material. Live they are equally as good as on record; polished, punchy and virtuoso when required; I wouldn't really like to single out any one star member. I guess they practice a lot.

"We'll probably use sequences created on the Atari more for the next album,"

SPARE TIME ST

'What do you use the ST for besides music?'

'Everything. As soon as I get back home I stay in my bedroom and play games. I become really involved with them and stay up all hours, in fact it's difficult to get me away from them. I can't bear to leave a game unfinished. I haven't really got into adventure games but if I had to make a list of games I play most I think my favourite would be: *Starglider*, *Pool*, *Tennis* and *Arkanoid*, in no particular order. I just play them all.

'I also use the ST for word processing. I do all my letters on it. I really enjoy writing programs as well. I spend hours at it whenever I can. It's great to iron out all the bugs and get your own program up and running. I taught myself to program on the 800XL Atari. It's a bit hard to program in basic but I wrote some music programs for it. Really I think I'm more into computers than music. I can't leave them alone.

'What I would like to do right now is to take at least a month off and start to learn machine code programming. I mean, I've got a compiler, but it's not the same as actually manipulating the figures. It just fascinates me.' (Hmm, if his guitar technique is any guide, I would be interested to see the results.) 'One of the most useful things I've got is the Back Pack, you know the plug-in utility with calculator, diary, printer buffer, and all that. I've found that one really useful.'

I get the impression that It Bites are on the verge of breaking out into the big league. Hopefully they should see America before the year is out, and provided they get enough weight and clout behind them they should go down a storm. I told them so. So apparently has everyone else. As you read this they are undertaking a promotional tour. See them now while you can still afford the tickets.

''ere. You couldn't get me a cheap mouse could you?'

It Bites are: **Francis Dunnery** – Guitar and Lead Vocals, **John Beck** – Keyboards, **Richard Nolan** – Bass, **Robert Dalton** – Drums. many thanks to Martyn and the lads.

DISTANT DRUMS

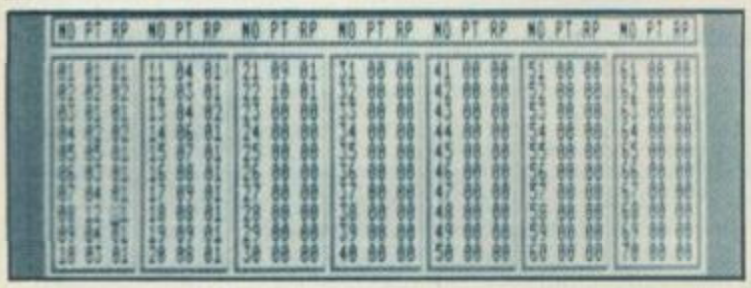
Hot-footing it from the Atari User Show, Jon Bates plays some drums and tries to be a minstrel.

And so to this month's music software proper which, owing to spatial limitations, is confined to a couple of pieces of gear for the Atari ST. I must advise you though that the two programs reviewed are being updated and improved. Check out which version you are purchasing before letting the shekels be prised out of your mitts.

In TGM**005** I talked about sampled drum programs and indeed looked at a couple. Well, here's another, this time from the lads at **2-Bit Systems** called *Digi Drum*. It costs £24.95 according to the latest Microdeal price list and uses a load of drum samples slammed into the memory. In fact it stores up to 16 samples at any one time; after booting up it proceeds to pound away at the usual sort of drum demo patterns you would imagine, thus demonstrating the drum kit samples that come with it.

Like all good sequencers, it runs on the theory that you build patterns via step- or real-time. Each can be from 4 to 32 beats long and you can create a list of up to 99 patterns, which are then arranged in to the 'song' format which can have up to 70 entries, bearing in mind that you can loop a set sequence of patterns and repeat any single pattern *n* number of times. All patterns can be saved, and I should think so too if you've just spent a couple of hours setting them up.

Verdict. Well it's not bad – but really little improvement on other sampled drum systems encountered for the Atari,and if you compare it with the wonderfully (and ridiculously) cheap *Microrhythm* available for the Commodore 64 at nearly 1/20th the price, there is really no comparison at all.



The visual display is functional without going out of its way to help you: you can't accent any of the beats, and although you can halve the sample rate you can't adjust the relative volumes or fine-tune the tone of individual drums. The samples sound okay, but not stunning, and you can't slam them through your sound reinforcement system (natty phrase, huh?) unless you have the *ST Replay* system which *Digi Drum* was obviously designed to complement.

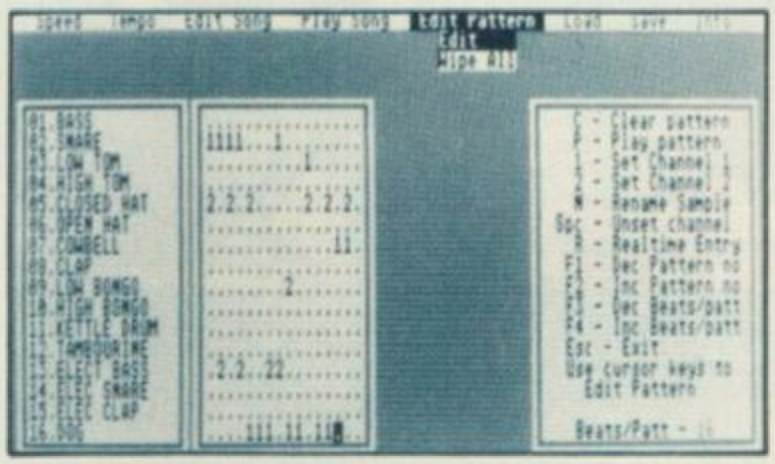
The real horror is that it *ignores* the MIDI ports (scream, how?, jibber), rendering it pretty well naff-all use unless you play along to it in real-time – presumably with your sister's rinky-dink toy piano balanced precariously on your knee! I cannot see how the program can justify its existence in the

It is also vague when it comes to handling MIDI output

NOT A COMPLETE BLONDIN

On we plough into the Kuma *Minstrel* program. It is, and I quote: 'a musical display editor for the Atari ST microcomputers'. As such it isn't too bad at all. If you like, it is a musical typewriter, a sort of note-processer that lets you enter your music in standard notational form and play it back either from the internal sound chip (boring) or liven things up by using the MIDI ports to hook up your syth, keyboard, hair dryer, family pet etc!

The real horror is that it *ignores* the MIDI ports . . .



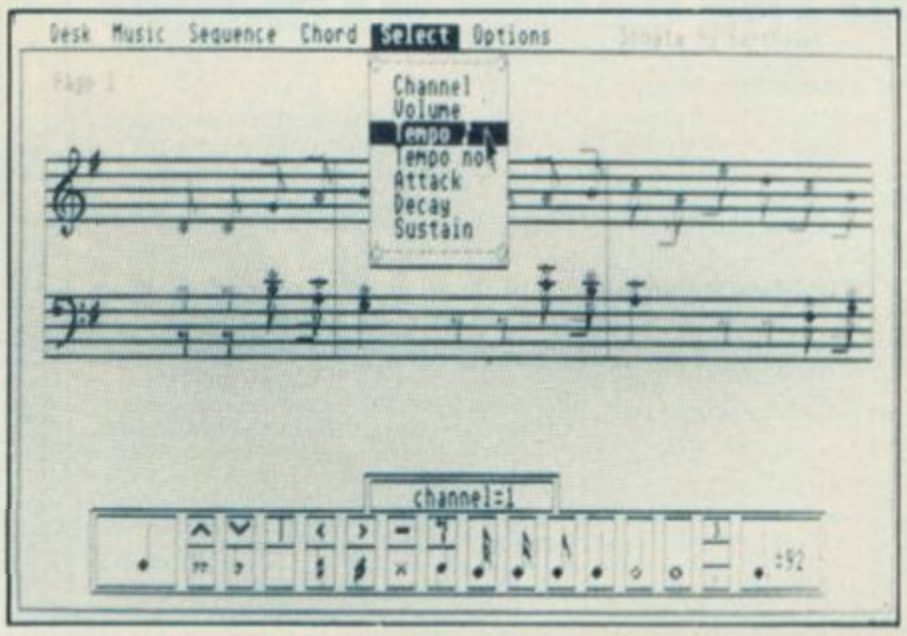
Like all good processors it copies and inserts parts of your score and merges it with whatever you have stored on the disk – storing up to 3,200 chords in the four-channel mode, which my maths makes about 12,800 notes. Sounds impressive, but not remarkable for a 520 ST really. Music is written by mouse-clicking on the note value or symbols you want from a palette and positioning them on the stave. Click again and the note drops onto the stave. There is only one choice of stave configuration (piano) by the way, so string quartets are definitely out this month.

It has some well-implemented features, such as you can alter the tempo to a certain extent by speeding up or slowing down; you can increase or decrease the volume for the internal channels and modify the tone of the internal chip. It has a good, clear, visual display that automatically justifies the note spacings for you. It is good at putting expression into pieces with very accurate markings, plus slurs and tenuto markings.

However there is no provision to put in a time signature – a glaring omission if Kuma see this as a musical printer. As there is no time signature, it cannot automatically insert barlines. Another point is that the notes have no joined beams; a succession of quavers, for example, remain separate and not linked neatly together. It is also vague when it comes to handling MIDI output, as you cannot insert any MIDI commands; it merely outputs note lengths and values on separate channels (unassignable), which is a bit pedestrian. There doesn't appear to be any provision for inserting notes via MIDI either, which is a bit sad.

Really it isn't complete enough a program to be taken seriously by, say, a music teacher or professional, and it is not designed for the rank amateur as you do need a pretty good idea of music notation to get going. So, I wonder to myself, who *is* it aimed at? For a few bucks more they could have come up with quite a neat package. Shame. Kuma would like £29.95 for this.

Next month: Casio CZ editors and more about music scoring. A de-luxe Amiga package is due for review and the Archimedes gets its first airing as soon as I get the software. Finally, the letters page has been thick with MSX freaks. Panic not. There is an MSX special planned to give you all the info on what's happening for MSX musically. If you have written in and not yet had the courtesy of a reply from me it is because I am amassing a problem page which to surface in due course. Any hints, tips or problems will be looked at and considered carefully. I look forward to hearing from you.



END

UNCLE MEL'S TRIVIA QUIZ

After listening to the doom and gloom expressed by so many software luminaries about our personal freedoms, Mel felt in need of a good laugh at your expense. The result: another 20 questions designed to enlarge your brain. Only those Persons Renowned in Computer Knowledge could possibly get 17 out of 20 correct. Have a go . . .

1) In 1972 a young guy named Nolan Bushnell wrote *Pong*. What did he call his Company?

2) Which fish weapon wrote CRL's *Wolfman*? **a)** Harpoon Whale, **b)** Stun-Gun Guppy, **c)** Rod Pike

3) Which cooked meat wrote Imagine's *Arkanoid – Revenge Of Doh*? **a)** Hot Wok Pork, **b)** Mike Lamb, **c)** Stu Beef

4) Who said, 'Man is still the most extraordinary computer of all'?

5) What are the Long-Tailed Tit, the Dusky Flycatcher, the Atlantic Gannet, the White-Bellied Bustard and the American Crow? **a)** Types of wild birds, **b)** Directors of well-known software houses, **c)** Chapters in the Kama Sutra.

6) Which software titles are hidden in the following insults? PRAT! RE-DO, YOP PEE, FLEA GRID!, W.R. RAT-ASS!

7) True or False? Computer-aided design robots were invented over 180 years ago by Joseph Jacquard?

8) What is R and R? **a)** Something that happens in Bangkok massage parlours, **b)** A software distribution company, **c)** Yokelspeak

9) What have the following stars got in common? Cesar Romero, George Sanders, Burgess Meredith, Shelley Winters, Vincent Price, Zsa Zsa Gabor, Eartha Kitt

10) What is the peak hourly charge rate for participating in the computerised heavy breathing service DESIRE, and how do you get into the main editing system and rearrange Debbie Desire's sexuality?

11) Which three Page Three Girls have endorsed which UK computer games?

12) How many Panamanians does it take to change a floppy disk?

13) Who is this mythological Himalayan creature? **a)** The Abominable Snowman, **b)** The Abominable Francis Lee, **c)** Snow White

14) What are the three definitions of MIDI?

15) What's the difference between CRL adventures and bogeys?

16) Name any of the Nexus-6 Replicants in *Bladerunner*, and the book in which they first appeared.

17) How many grooves are there on a 3½"floppy disk?

18) Apart from an Eagles song, what is *Hotel California*?

19) True or false? Max Headroom was based on a British software editor.

20) What abbreviation for lavatory paper is a Denton Designs/Outlaw software title?

ANSWERS

1) Atari
2) Rod Pike, also known as 'a Gaff'
3) B) Mike Lamb, although microwaves are not recommended for revenging dough.
4) John F Kennedy, 1963
5) Yes
6) *Predator*, *Popeye*, *Garfield*, *Star Wars*
7) True: his robot weaving machines used the first ayer punch-cards.
8) A) and C), but I'm not sure about B)
9) Batman! They all starred as villains.
10) £22.80p. I know nothing about hacking. Try keying in *03#
11) Samantha Fox (*Strip Poker*), Maria Whitaker (*Barbarian*), Corinne Russell (*Vixen*)
12) Two: one to change the disk, the other one to change the government
13) B) searching for A) disguised as C), or possibly the other way round
14) A calf-length skirt, a geographical region in the south of France, Musical Instrumental Digital Interface
15) Kids like playing with bogeys
16) Leon, Batty, Pris, Zhora, Rachael, *Do Androids Dream Of Electric Sheep* by Philip K Dick
17) One, unless my sister borrows it
18) A Micronet (Prestel) Bulletin Board
19) True: George Stone (The Ram Jam Corporation) dreamed up Max after suffering a car crash
20) Troll

NEXT MONTH

IN THE GAMES MACHINE!

■ **INSIDE THE SPACE SHUTTLE**
Marshal T Rosenthal reports from 'somewhere' in America where he has flown the Space Shuttle – in a simulator. It's *the* state-of-the-art video game, with billions of dollars of hardware at your fingertips.

■ **HYPE'S IN A NAME**
Sorry, but we ran out of space this month for Barnaby Page's investigation into the meaning behind all those sharp-edged company and product names. But it will be there next month – promise.

■ **PARSEC PIXEL+**
Watch out for the full-scale evaluation of the graphics system that makes an Atari ST into something astonishingly different – a follow-on from our article on page 79 of this issue. However, production lines can be funny things, there is an outside chance the prototype won't arrive in time for a review, so keep your fingers crossed!

■ **BULLETIN BOARDS**
Eschewing the obvious, Mel Croucher investigates the seamier side of computerised Bulltin Boards, talking to people who use them in search of sex, love, friendship, bomb-making equipment, you name it – he'll talk to it . . .
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